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ORIGINAL ARTICLES.

RATIONAL GYNECOLOGY.

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It is not the purpose of this paper to enter upon a detailed consideration of the various pathologic conditions with which the gynecologist has to deal, but briefly to call attention to a few principles which, though not unknown to the masters of this branch of medical science, appear to receive much less practical attention than they deserve. I do not dare to presume that this paper will contain anything particularly novel in principle or unique in method; my aim is simply to show that it is possible to make a practical and successful application of every rational principle which has been developed by the sagacious observations of Sims, Peasley, Emmet, and others of the pioneers of American gynecology.

From a theoretic standpoint, gynecologic methods as presented in our most recent text-books leave little to be desired, but in practice how seldom do we see a thorough-going application of the methods calculated to reach the causes of the pathologic conditions present? For example, every gynecologist knows that uterine retroversion is not a distinct pathologic entity, but merely a symptom, and the same may be said of cervical erosion or granular degeneration, and of the various morbid conditions misnamed chronic metritis, endometritis, etc.; nevertheless, in ninety-nine cases out of a hundred these symptoms, which are Nature's sign-boards to direct attention to disturbing factors, are treated by merely palliative means, such as pessaries, pledgets, cauterization, antiseptic lotions, etc.

It is not usually a difficult thing to cure a cervical erosion, a catarrh, a prolapse, or a retroversion by palliative or more radical measures, and after the lapse of a few weeks or months, often even a few days, the same symptoms or others of allied character return, and the same or similar remedies must be reapplied. It is not uncommon to observe cases in which women have been under the care of gynecologists almost steadily for from one to five years, or even longer, often until both money and patience are wholly exhausted. In the end the unfortunate victim is no better than at the beginning of the treatment, because the underlying causes have not been

reached; the leaves of the pathologic tree have been picked off, but the tree itself has not been plucked up by the roots, and continues to bear fruit. The visible effects of disease are the result of causes which lie beneath and often out of sight. Unless these causes are removed the morbid condition is certain to be reproduced. The principles which I have gradually come to adopt in the practice of gynecology during nearly twenty-five years of active practice are the following:

I. Excluding infectious maladies, the local symptoms or pathologic phenomena do not, as a rule, afford evidence of a purely local disease, but are simply a local expression of morbid conditions more or less generalized in character.

II. Displacement of the pelvic viscera is not, as a

FIG. 1.



FIG. 2.



Fig. 1.—Showing visceral displacement from incorrect standing and corset-wearing.

Fig. 2.—Showing displaced viscera.

rule, an isolated pathologic condition, but is associated with similar displacements of the viscera of the abdominal cavity.

III. The principal causes of uterine and ovarian displacements and congestions are such as affect the static relations and the circulation of the viscera of the abdomen as well as those of the pelvis, and hence, the rational treatment of displacement of pelvic organs requires the removal of all causes of similar displacement of the abdominal organs as well as of the pelvic viscera, and the restoration of the normal supports of these organs.

IV. For permanent results the patient must be made sufficiently well to be able to dispense with special treatment, and so that she can endure with-

out inconvenience the ordinary wear and tear of life and with no resulting injury.

So-called pelvic disease, excluding infections, is seldom a distinctly local affection.—A failure to recognize this principle has led gynecologic surgeons to remove a vast number of hyperesthetic ovaries which were sensitive only because the patient was suffering from a general condition of malnutrition and resulting nervous irritability, and not infrequently to perform unnecessary hysterectomies, dilatations, curettements, and plastic operations upon minute cervical and perineal lacerations; sundry other operations have likewise been performed.

The gynecologist meets with a vast number of cases in which the symptoms relating to the pelvic organs are present simply because the patient's general health is not good. Every function is disordered, every nutritive process disturbed, and it is wholly on account of some predisposing or exciting cause that this expression of a general morbid condition is made by the pelvic viscera. Physical depravity is much more frequent than any other condition in which pelvic symptoms are prominent. Total extirpation of the pelvic viscera will not cure such a condition. I have seen many patients who had had both uterus and ovaries removed by some specialist possessed of a penchant for this sort of surgery, who were not relieved one whit of the various annoying symptoms on account of which the operation was performed, but whose condition was, on the contrary, actually made worse. I may also say the same with reference to such minor operations as trachelorrhaphy and perineorrhaphy. I think it may be safely said that quite a large majority of the patients upon whom these operations are performed, except in the most extreme cases, are greatly disappointed in the results experienced, backache, dragging pains, headache, neuralgia, indigestion, intestinal inactivity, depression, and other annoying and distressing symptoms remaining, or returning as soon as the patient loses the temporary benefit derived from a few weeks' enforced rest in bed. These disappointments are the result of a failure to recognize the *general* character of the patient's malady. It is a fact that the mere existence of a cervical tear, an ovarian or uterine tenderness, or the coexistence of these conditions with symptoms in remote portions of the body cannot be regarded as indications of any causative relation between the pelvic condition and remote local or general symptoms.

A pelvic examination, even the most thorough, is rarely sufficient to furnish the necessary data for instituting a rational plan of treatment. In the great majority of chronic cases, excluding tumors and infections, the whole woman is sick—the whole body—and the condition of every important organ and

every vital function must be investigated, and the possible relation of any general morbid condition to the pelvic symptoms must also be carefully studied.

Displacement of the pelvic viscera is not, as a rule, an isolated pathologic condition, but is associated with similar static disturbances of the viscera of the abdominal cavity.—It should not be forgotten that the pelvic and the abdominal cavities really constitute one cavity, which might be termed the lower cavity of the trunk, since no partition exists between them. From this fact it must be apparent that general causes or conditions operating upon the abdominal viscera must affect in a similar manner the viscera of the pelvis. Prolapse of the organs of the abdominal cavity necessarily tends to produce displacements of the pelvic organs, although it is surprising to note with what obstinacy the viscera of the pelvis not infrequently resist the disturbing influence of extensive displacements of the viscera of

FIG. 3.



Fig. 3.—Showing displacement of spleen and other viscera from corset-wearing.

FIG. 4.



Fig. 4.—Showing visceral displacement in a woman who had worn a "health corset."

the abdomen. During seven or eight years I have made careful observations of the position of the abdominal viscera in all cases of pelvic disease which have come under my observation, and in a recent study of the cases in which complete notes were taken I find some most significant facts which may be briefly summarized as follows:

Total number of cases examined in which pelvic or abdominal displacements existed	2132.
Cases of displacement of pelvic organs....	1089—52 per cent.
Cases of displacement of abdominal viscera without displacement of pelvic viscera...	1023—48 per cent.
Cases of displaced pelvic viscera without displacement of abdominal viscera.....	134—6 per cent.
Floating kidney.....	357—17 per cent.

Only such cases were included in the list of pelvic displacements as presented some very marked displacement, as retroversion, marked retrocession, or procidentia. Cases of ante flexion and slight prolapse were not counted. It is evidently impossible

to draw from these results any other conclusion than that visceral displacements in the pelvic cavity do not constitute a separate and distinct class of disorders, but that they are etiologically and pathologically linked with static disturbances of the organs of the abdomen. Hence, it is apparent that in the study and the treatment of pelvic disorders, at least those involving visceral displacement, the pelvis must be considered simply as a portion of a common cavity occupying the lower part of the trunk, subject to practically the same disturbances and requiring for the relief of one diseased part attention to the whole.

The rational treatment of pelvic disease requires the removal of the causes of displacement and congestion of the abdominal viscera as well as similar conditions of the pelvic viscera.—The facts previously cited are certainly such as to carry with them the conviction that chronic disease of the pelvic organs, especially

FIG. 5.



Showing position of viscera in corset-deformed woman.

displacement, is associated with similar conditions of the abdominal viscera. They also show that displacements of the abdominal viscera are much more frequent than like conditions of the pelvic viscera, the latter organs being more thoroughly protected by Nature against disturbing influences.

Since Dr. Trestour, the eminent French physician, pointed out a few years ago the important relation of prolapse of the various abdominal viscera to different forms of disease in both men and women, I have made a diligent study of the position of the abdominal viscera in all cases coming under my observation. I have nearly always found serious displacements of the viscera accompanied by extreme irritability of the sympathetic nerve-centers of the abdomen, especially the lumbar or hypogastric plexuses and the solar plexus. The strain upon and the constant irritation of the great sympathetic centers of the abdominal cavity, from displacement of the colon, kidneys, or liver, is a constant source of reflex irritability, which,

acting first upon the great centers of the brain and spinal cord, may be reflected to any or all of the peripheral nerve ramifications. That such an irritation exists is shown by the fact that tenderness of the solar plexus, of one or both of the lumbar ganglia, or of the lumbo-aortic plexus was found in a large proportion of the total number of cases to which the foregoing statistics relate. I have long been convinced that the greater number of symptoms, such as backache, dragging sensation across the lower abdomen, inability to stand long upon the feet, and similar symptoms are not, in the great majority of cases, due to pelvic disorders, but to the general visceral prolapse which not infrequently involves all the organs of the abdominal cavity.

Figures 1 to 6 illustrate some of the characteristic deformities of figure and displacement of internal organs which I have observed in connection with cases of pelvic disease.¹

To effect a permanent cure in these cases usually requires considerably more than the employment of such local palliative measures as pledget-placing, electricity, and vaginal douches, or even plastic operations. Such methods of treatment must be instituted as will reconstruct the constitution, give tone to the nerves, vigor to the muscles, and cause a general increase of vital energy.

Only a brief statement of the methods by which this may be accomplished will be possible within the limits of this paper. First of all, it is my custom to make a thorough examination of every patient who comes under my care. This examination includes, in addition to the ordinary investigation of the patient's early and family history and a careful study of the morbid symptoms and conditions relating to the pelvic organs which the case presents, a thorough study of the position of every abdominal organ, a careful examination of the blood, a test of the strength of each individual group of muscles, and such other special investigation as may be indicated. The examination of the abdomen is begun by careful palpation, all waistbands being loosened and the clothing so adjusted as to facilitate the examination. One's fingers soon become sufficiently trained to enable him to quickly detect any considerable change in the position of the liver, kidneys, stomach, or colon. The condition of the pelvic viscera is then carefully determined by the bimanual method.

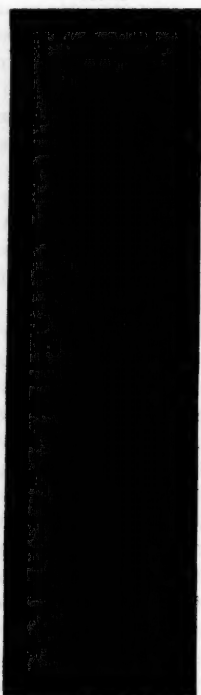
Next, careful note is taken of the pose assumed in standing and sitting. The obliquity of the pelvis is determined by the pelvi-oblique-meter. In by far the majority of cases this is found to be greatly diminished through abnormal straightening of the lum-

¹ The cuts used in connection with this article are borrowed from the author's work, "The Art of Massage."

bar spine, a condition unquestionably conducive to prolapse of both the abdominal and pelvic viscera. The patient's clothing is investigated, and peremptory orders are issued that tight bands shall be at once discarded.

The next day, if the condition is such that the patient is able to be about, dynamometer tests of the various groups of muscles are taken, and a physical chart or graphic representation is made, which at once shows the weak spots in the patient's nervo-muscular apparatus and also the degree of weakness. The physical coefficients, based upon the mathematic data obtained by the dynamometer, indicate at once whether the patient should gain or lose in flesh, and

FIG. 6.



Showing the effect of heavy skirts and a bad position in a woman aged twenty-four years.

the kind and amount of exercise required. In cases of special interest, outline tracings of the front and side profiles are made, as a record of symmetry and habitual pose. Examinations of the blood and the urine are made, and, if it is necessary to determine the digestive capacity, a test-meal is given. The examination being completed and a careful record made, the treatment is usually outlined as follows:

A week's program of baths, consisting of one or two vaginal douches daily of such a temperature as is vaginated to the patient's condition, sitz baths (80° to 90° F.), the ordinary shower-bath, spray, and douche,

the Scotch douche, salt glows, electric-light baths of three- to five-minutes' duration, tonic applications of faradic electricity in the form of general faradization, the sinusoidal electric current with slow alternations applied to specially weak groups of muscles, applications of the galvanic current to the spine and the sympathetic centers of the neck and abdomen, general massage, special massage of the abdomen, pelvic massage, manual Swedish movements daily, mechanical Swedish movements, Swedish gymnastics and light calisthenics in the gymnasium, and, in appropriate cases, swimming, bicycle riding, boating, and other light exercises, and such other specific treatment as individual cases may require. If the patient is thin, careful attention is given to the application of such dietary measures as will be conducive to the most rapid gain in flesh. If the patient is obese, reducing measures are employed. In case the patient habitually sits or stands with the spine abnormally straightened, thus encouraging visceral prolapse by diminishing the obliquity of the pelvis, she is subjected to a special course of training and instruction to correct this injurious attitude. In many cases an abdominal supporter is employed. (Fig. 7.) A more specific description of some of the measures employed may be of interest:

Baths.—In addition to sitz, shower, and other baths, various local applications are made, such as fomentations to the spine, hot sponging, or hot and cold applications to the spine, fomentations, hot bags, and compresses over the abdominal or pelvic regions, foot baths, hot and cold applications to the head, effervescing or carbonic-acid-gas baths, electric, Russian, and Turkish baths, etc. The electric-light bath continued just long enough to produce slight moisture of the skin and followed by a cool shower bath I find a most excellent tonic measure. Showers, and all forms of sprays and douches are employed with apparatus so constructed that absolute accuracy in regard to time, temperature, and pressure may be easily secured. Experience shows that it is only by the employment of accurate measures that definite and reliable results may be obtained.

Electricity.—The era during which electricity was considered a panacea for all human ailments and especially for maladies peculiar to women has passed. The number of over-enthusiastic electrotherapeutists is certainly much smaller than it was a few years ago. It is now, I think, generally conceded that electricity is actually curative when employed by itself alone in but a very small proportion of cases of pelvic disease. Nevertheless, it is an exceedingly useful palliative. For the relief of ovarian and other forms of pelvic pain I find the rapidly alternated sinusoidal current superior to all others. The slowly alternat-

ing sinusoidal current furnished by the apparatus shown in Fig. 8 is a most efficient means of developing weakened muscles. It produces powerful contractions without pain, a contraction occurring at each alternation of the current. Both forms of the current may be used for internal or external application, or in combination.

Massage.—General massage is of great value as a means of improving the patient's general nutrition, but I attach great importance to abdominal and pelvic massage used in connection with general massage. During a good many years I have given attention to the development of these special forms of massage, and have seen most excellent results from their employment. I shall not occupy space in this paper to describe fully the methods of abdominal and pelvic massage, but I have endeavored to consider the subject fully in my work, "The Art of Massage."

Massage of the Abdomen.—The following rules should be carefully observed in abdominal massage:

1. General abdominal massage should not be administered until two hours after eating.
2. The bladder should always be emptied just before abdominal massage.
3. In obstinate cases of fecal accumulation, a colocyler (large enema taken in right Sims' or knee-chest position) of warm water should be administered, the water being allowed to pass off before treatment.
4. The patient should be taught to relax the ab-

FIG. 7.



Showing a natural abdominal supporter.

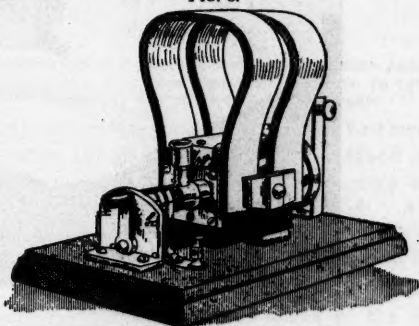
dominal muscles, and to breathe deeply and regularly during treatment.

5. If the abdomen is very sensitive, apply a hot fomentation before giving the massage.
6. If the skin perspires very freely, render it firm and smooth by sponging with cold water.
7. Very "ticklish" patients require careful education by avoidance at first of superficial movements.
8. Pain and coldness of the extremities or depres-

sion after abdominal massage is due either to bungling or violent treatment or to extreme hyperesthesia of the abdominal sympathetic. In such cases fomentations and the moist abdominal bandage should be employed in connection with massage.

9. It is important in all manipulations of the abdomen to exercise great care not to excite pain. All movements should be executed in such a manner as to avoid sudden thrusts, thereby causing the patient

FIG. 8.



Showing new sinusoidal apparatus.

pain or other disagreeable sensations, as such disturbances create rigidity of the abdominal muscles, thus seriously interfering with the effects of the manipulations.

10. In employing massage of the abdomen, the operator should stand over the patient, so as to aid his hands as far as possible by the weight of his body, taking care, of course, to graduate the pressure to the requirements of each individual case.

11. All deep-kneading movements in massage of the abdomen should be slower than for other parts of the body, to allow time for the movement of the fecal mass.

The different procedures to be employed in abdominal massage may be briefly discussed as follows:

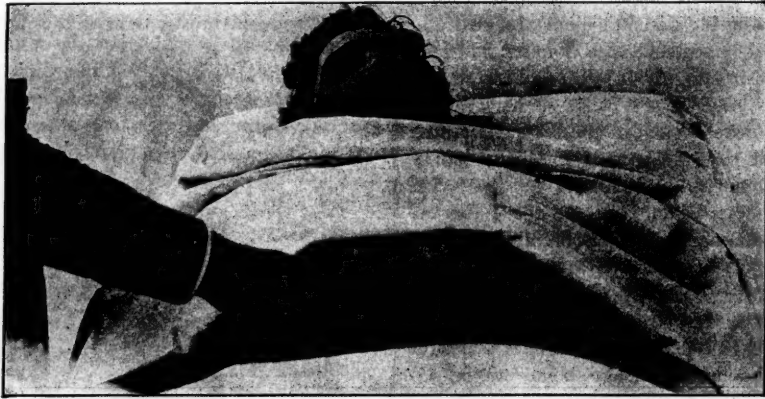
Reflex Stroking.—With the ends of the fingers make very light strokes in a circular or semi-circular direction about the umbilicus. Begin very close to this point, gradually extending outward, then return and repeat. Also make vertical strokes along the sides in the mammary line and parallel with the rectus muscle. Strokes may also be made over the fourth, fifth, and sixth ribs at the sides of the chest. In sensitive persons one-sided contraction of the abdominal muscles or a twitching at the epigastrium will be noticed as the result of these so-called abdominal and epigastric reflexes. This procedure is strongly exciting; some patients are not able to endure it. The profound reflex which results in patients who are very sensitive or ticklish is evidence of the

strong influence of this procedure upon reflex nervous activity.

Nerve Compression.—(Fig. 9.) The stomach and the intestines are directly controlled by the solar plexus and the lumbar ganglia of the sympathetic.

make a considerable degree of pressure in order to reach them. The tips of the fingers placed upon the points indicated should be carried directly back toward the spinal column, the patient in the meantime being directed to take first a full breath, and

FIG. 9.

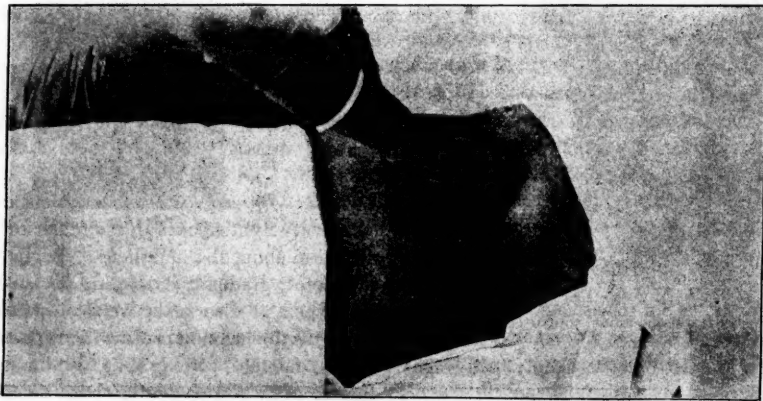


Showing method of compression of lumbar ganglia of the sympathetic.

The solar plexus is at the epigastrium just below the lower end of the sternum. The chief lumbar ganglia are situated on either side of the umbilicus, about two inches from it. Pressure upon these ganglia has a marked stimulating effect, because they send out energetic nerve-impulses into the parts which

then to exhale as completely as possible. This diverts the mind of the patient from the procedure which is being executed and also diminishes the abdominal tension, thus making it less difficult to bring pressure to bear upon the posterior wall of the abdominal cavity. With patients who are extremely

FIG. 10.



Showing digital kneading of colon.

they supply, which include not only the stomach and intestines, but all the abdominal viscera. It should be remembered that these nerve-masses lie beneath the abdominal contents, resting upon the bodies of the vertebræ. Hence, it is necessary to

fat or in whom the abdomen is greatly distended with gas this procedure can only be executed in a very imperfect manner.

The position is a matter of great importance. The shoulders should be slightly raised and the knees

well drawn up, the legs being supported so that the anterior abdominal wall will be relaxed as much as possible. The patient's hands should be by her side, and all the muscles of the body in a state of rest. Only gentle pressure should be employed, and the application continued but two or three seconds at each point. In many cases it will be found that extreme sensitiveness exists at the points indicated, which is evidence of an excited or hyperesthetic state of the abdominal sympathetic. Continuous gentle pressure may be beneficial by setting up a series of vital activities which result in the restoration of the nerve to its normal condition.

Vibration.—(a) Strong vibration applied to the abdominal contents has been shown to be one of the most powerful means of stimulating the nervous reflexes, circulation, glandular activity, and peristalsis. Either one or both hands may be used. The flat palm of the hand is applied to the surface, with the arm extended, and fine vibratory movements are executed in such a manner as to throw the whole abdominal contents into vibration. The same movement, may be beneficially applied to the liver. (b) A more vigorous shaking movement is communicated to the abdominal contents by making intermittent pressure either with one hand, or with one hand reinforced by the other, or by both hands in alternation, the movements being made with sufficient rapidity to produce a decided motion of the abdominal contents. The effect of this procedure is very marked in cases in which the abdominal walls are considerably relaxed. (c) A third method of applying shaking is by placing the palm of the hand upon the abdomen, the arm slightly flexed, then making a rapid rotary movement without allowing the hand to slide upon the surface. The direction of the movement is alternated, half a dozen in one direction, and then an equal number in the opposite direction.

Percussion.—This is unquestionably the most powerful of all the stimulating means which can be applied to the viscera through the abdominal wall. All the different modes of percussion, *viz.*, tapping, spitting, clapping, hacking, and beating may be successfully employed.

Digital Kneading.—(Fig. 10.) Standing face to the patient's feet, with the fingers very slightly flexed, place the finger-tips, the hand being reinforced by the other hand placed above it, upon the abdomen low down upon the right side. Crowd the finger-ends backward, pressing with as much force as possible, without giving the patient inconvenience, against the cecum. Carry the hand upward in the direction of the ascending colon as far as permitted by the ribs. Repeat the movement four or five times. Execute similar movements on the left

side, beginning above instead of below, and pressing the fingers upon the abdominal wall at a point close under the ribs on the left side. Then carry the hand downward, turning toward the median line at the conclusion of the movement so as to follow as closely as possible the course of the sigmoid flexure of the colon.

(To be continued.)

THE MANAGEMENT OF HERNIA IN INFANCY AND CHILDHOOD.¹

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THE importance of understanding the best methods of treating hernia in infancy and childhood is evident when we consider the relative frequency of this affection during the earlier years of life. At the Hospital for Ruptured and Crippled, New York, during the six years from October 1, 1890, to October 1, 1896, there were treated 26,388 cases of hernia. Of these, 6,586, one-fourth of the entire number, occurred in children under the age of 14 years. Of 22,362 inguinal herniæ, 5554 occurred in children under 14 years of age; almost exactly one-fourth. Of 21,000 cases of hernia observed at the London Truss Society, 3433 were in infants under the age of 1 year.

I believe that many herniæ observed in youth, and even in adults, are due to lack of treatment or to imperfect treatment during infancy.

Some writers advise against the use of a truss during the first year of life, trusting that Nature will effect a cure, or believing that no harm will result from the delay. Such teaching should be strongly condemned. In this I am in most hearty accord with Mr. Macready, who says, "directly the rupture is discovered the truss should be applied. Some have imagined that very young children cannot wear a spring truss, but this is an error." The experience with the light spring truss in infantile hernia at the Hospital for Ruptured and Crippled entirely agrees with Macready's. I have yet to see an infant, save possible three or four suffering from extreme malnutrition, that could not wear a properly constructed and well-fitting steel truss. Such a truss should cause very light pressure, and should be daily removed to permit of careful washing and cleansing of the parts. I regard the steel truss as much superior to the various substitutes, *e.g.*, the "worsted" truss, and this opinion is based upon a careful trial in a large number of cases.

Duration of Treatment.—It is very difficult to lay

¹ Read before the Section on Pediatrics at the last meeting of the American Medical Association.

down any hard and fast rule as to how long a truss should be worn, but it is safe to say its use should seldom be discontinued until two years have elapsed since the hernia was last observed. The younger the patient when the treatment is begun the shorter the time necessary to effect a cure is true in the majority of cases. If the use of a truss is discontinued too soon relapse is likely to occur, and then a much longer time will be required to effect a cure, if, indeed, it be ever attained. Strangulation, though rare during the first year of life, occasionally occurs and furnishes an additional reason for early treatment. I have operated seven times for strangulated hernia in children under two years of age; three of them under one year.

Umbilical Hernia.—This variety is very common during the period in question, 2043 cases in patients under the age of 14 years having been observed at the Hospital for Ruptured and Crippled during the six years previously referred to. The method of treatment which we have employed as a routine measure consists in placing a simple wooden button, about one inch in diameter and first covered with rubber plaster, directly over the umbilical opening, and fixing it in this position by means of a strip of rubber plaster, two inches wide, which completely encircles the abdomen. This is changed about every ten days, and seldom causes excoriation or undue irritation. Nearly all of these patients with umbilical hernia are cured within a short time by some such simple means of support, and it is extremely rare to find a child who has reached the age of puberty with the hernia persisting. Therefore, it follows that it is bad judgment to advise operative treatment in this class of cases.

Epigastric Hernia.—There are occasionally seen herniæ which closely resemble the umbilical variety, but careful examination makes clear the fact that the hernial opening is not at the site of the umbilicus, but slightly above, or more rarely, on either side of this point. Such herniæ are due to congenital defects in the linea alba, or in the lineæ semilunares, and if the opening is very large, e.g., of a size that will admit the thumb, mechanical treatment will seldom effect a cure, and such cases may very properly be subjected to operation. Out of a total of 565 herniæ in this region in children under 14 years of age, but 19 of this variety were observed during the period previously mentioned.

Femoral Hernia.—This is seldom found in infancy and early childhood. Of 1424 cases of femoral hernia treated at the Hospital for Ruptured and Crippled during the six years referred to, only 43 occurred in patients under the age of 21 years, and but 17 under the age of 14. Macready's tables, compiled from

the records of the London Truss Society, show that out of 1658 cases of femoral hernia only 27 occurred in children under the age of 10 years, and only 5 under the age of 5 years. In other words, out of a total of 21,000 cases of inguinal and femoral hernia, only 5 cases of the femoral variety were observed in children under 5 years of age! I have operated upon 8 cases of femoral hernia in children under the age of 10 years, and 15 under the age of 14 years, the youngest having been a male infant just 2 years of age, with a double femoral hernia of large size. An operation was performed upon both sides with an interval of two weeks between the operations. The sac of the right hernia contained the cecum. This is the only case in which I have found this organ in a femoral hernia.

Treatment of Femoral Hernia.—The mechanical treatment of femoral hernia in infancy and childhood can be dismissed with a few words, as the best authorities admit that it is practically incurable by means of a truss. In regard to this point, Macready states that "femoral hernia so seldom recedes in either sex that it must be deemed incurable. It is well known from pathologic observations that these herniæ become obliterated, but the instances are so few that they give no ground for hope of a favorable issue in general." This fact furnishes a sufficient reason for urging early operative treatment, provided, of course, that it may be shown that such treatment is both safe and effective.

Personally, I have had but one relapse subsequent to operation for femoral hernia, either in children or adults. I have operated upon thirty-eight patients presenting this affection, and the oldest is now well upward of six years. The one case which relapsed, that of an adult, was the only one in which primary union was not obtained. The methods I have employed were two, as follows: (1) A very high ligation of the sac and a closure of the canal by means of a "purse-string" suture of kangaroo tendon. The wound is closed with fine catgut suture, and is not drained. Eight patients were operated upon in this manner. (2) Bassini's operation for femoral hernia was employed in the treatment of the remainder, and consists of a closure of the canal by two layers of interrupted sutures. In this operation I likewise used kangaroo tendon for the buried sutures. A truss was not employed after operation in any of these cases and, in all, the wounds healed by primary union.

Treatment of Inguinal Hernia in Children, and the Probability of Cure from Mechanical Treatment.—It will be at once seen that this is a most important point, for upon it depends the whole question of the operative treatment of hernia in children.

Some excellent surgeons have contended that all cases of hernia in infancy and childhood may be cured by means of a truss. Therefore, they argue, operations for the radical cure of hernia, whatever may be said in their favor in regard to adults, have in children no *raison d'être*. This was the burden of the criticism of my first paper upon the "Operative Treatment of Hernia in Children," published in 1893, and in which I reported 51 cases. This criticism, if well founded, would certainly leave the operation without rational support. Hence, it is worth while to most carefully examine the facts in the case.

I had long believed this opinion against operative procedure in children to be the result, rather of preconceived ideas, than of careful or extensive observation. This belief was strengthened when a thorough search through the literature of hernia failed to discover any data upon which to decide such an all-important question. It, indeed, permits of a fairly accurate solution for when simplified it is resolved into the following: How many adults with hernia had it during infancy or childhood? To aid in answering, I have, with the assistance of Drs. Carl Pfister and A. H. Cilley, analyzed all cases treated at the Hospital for Ruptured and Crippled during the six years from October 1, 1890, to October 1, 1896. During this period 26,388 patients with hernia were treated, and of this number 15,197 were over 21 years of age. The object of my analysis was to determine how many of these adults presented a history of hernia in infancy and childhood. Contrary to the opinion of many that few, if any, such cases exist I found 1360 instances of hernia which had been acquired previous to the age of 20 years; of these 306 had been noticed in early infancy; *i.e.*, soon after birth, or during the first two years of life; in 397, the hernia appeared before the age of 14 years. In other words, in 700 cases the hernia appeared before the age of puberty.

It will be seen in calculating the percentage of herniæ in infancy and childhood which persist until adult life is reached that several difficulties at once arise. The number of individuals with hernia, that, having the hernia previous to the fourteenth year of life will survive to reach maturity must be estimated. For the purpose of a concrete example, suppose we take 100 children with rupture who are under the age of 14 years, how many will be alive when the youngest is 20 years of age? From the most reliable mortuary statistics¹ it may be estimated that less than one-half of the number will be alive at the end of this period. Hence, even if there were no instances of cure we should find but 12½ per cent. of all patients with hernia, present-

ing a history of the same affection during infancy and childhood. Undoubtedly many of the adult patients fail to remember the early history of the hernia, and this fact makes our estimate much too small. Making due allowance for errors, the 700 cases found in our analysis represent, approximately, about 25 to 30 per cent. of the cases in individuals who reached adult life; in other words, nearly one-third of all cases of inguinal hernia in children are not cured by mechanical treatment.

Operation should, I think, seldom be advised in children under the age of four years, because there are very few cases in patients under this age which cannot be controlled by a truss, and furthermore, mechanical treatment cannot be given a fair trial in a much shorter period than this. Out of a total of 430 patients operated upon by myself but ten were under the age of four years. This number does not include six cases in which operation was performed for the relief of strangulation. I do not believe that the operative treatment is entirely devoid of danger in infants and very young children, though the chief menace, I think, lies in the anesthetic.

As to selection of cases I cannot perhaps do better than repeat what I recently stated in a recent report on the "Radical Cure of Hernia:"

"I believe it to be a good rule never to advise operation in children until a truss has been satisfactorily tried for a reasonable time, *e.g.*, one or two years without benefit. There are, however, important exceptions to this rule: (1) In femoral hernia operation may be at once advised; for the reason that the chances of cure by means of a truss are too slight to be considered. (2) Irreducible or adherent omentum (rare in children) and reducible hydrocele may furnish sufficient reason for early operative interference. (3) There are, furthermore, a number of cases, especially in dispensary practice, in which the rupture cannot be satisfactorily retained on account of insufficient care on the part of the parents, and such cases may with profit be subjected to immediate operation."

Dangers Attending Operation.—The operation may be regarded as practically free from risk provided the child is in good health and the operation performed under favorable conditions. The fact that most of the few fatal results have been due to ether-pneumonia shows the importance of paying strict attention to the anesthetic as well as the condition of the child's lungs prior to operation.

Adding together the cases of children operated upon for radical cure by Broca of Paris, 477 cases with 2 deaths; by Felitzet of Paris, 105 cases with 1 death, and by myself, 290 cases with 1 death, we

¹ "Eleventh Census, vol. 4, Vital Statistics."

¹ *Annals of Surgery*, March, 1897.

have a total of 877 cases with 4 deaths, or a mortality of less than one-half of one per cent.

This mortality is lower than any that can be computed from a like number of cases in adults, and the percentage of permanent cures is also larger. In other words, operation in childhood is not only attended with less risk, but it also gives the best results.

Choice of Methods.—The results in my hands following Bassini's operation have been so extremely satisfactory that I confess that I may be somewhat prejudiced in its favor, and hence unconsciously do injustice to some of the other methods. When once the principles of Bassini's method are clearly understood and the surgeon has become familiar with the technic the operation becomes a very simple one, and may be easily performed within from fifteen to twenty minutes. In employing this method in children greater care must be exercised than in adults in order to avoid damaging the delicate structures of the cord and sac. As yet, I have never injured the cord either in children or adults.

The necessity of transplanting the cord in operations for the cure of hernia cannot yet be regarded as definitely settled, though no surgeon has been able to show as brilliant results by any other method. Dr. Bull and myself have operated upon a small number of cases using exactly the same technic as in the Bassini operation, except that the cord was not transplanted. These cases have remained well with few exceptions; some of them upwards of four years. The number of cases is hardly sufficient to justify a comparison with the results following Bassini's operation. The only advantage which might be urged in behalf of this method is the fact that it is more simple and that less time is required in its performance. These are somewhat doubtful advantages since the difference in time would probably not be more than one or two minutes. The sac cannot be properly isolated without at the same time freeing the cord sufficiently to perform Bassini's operation, so that it makes little difference as regards time whether the sac be placed above or below the deep layer of sutures. Personally, I am inclined to regard the transplantation of the cord an important element in the success of the operation. There are a few practical points in Bassini's method which I think of great value: One is to at once stop all bleeding, so that the field of the operation may be perfectly clear; all of the layers of muscle and fascia should be as easily demonstrable as in a dissection on the cadaver. If the tissues become stained with blood the sac is separated with difficulty, and the bruising resulting from prolonged manipulation greatly diminishes the chances of securing primary

union. Another point upon which I lay much stress is never to cut any of the muscular fibers (external or internal oblique) in opening the canal. In this operation the aponeurosis of the external oblique is slit up above the internal ring, but I exercise great care not to cut any of the underlying muscles. Many surgeons freely cut these structures. The cut edges retract, and they can never become accurately adjusted or thoroughly united. The cutting is entirely unnecessary, as gentle stretching with the fingers is sufficient to open the canal to the desired extent. The substitution of the kangaroo tendon for silk in the buried sutures (Bassini himself uses silk), I believe, has been a distinct gain, and to this I attribute the very large percentage of primary union in my cases, as well as the improvement in ultimate results.

Final Results.—With the assistance of Drs. Jaegen, Thompson, and Ledlie I have been able to trace all but ten of the 285 patients operated upon.

Of my 290 patients under 14 years of age who were operated upon, Bassini's method was employed in 257; of these all but 8 have been traced with the following results:

2 were sound after.....	5 years
15 " " "	4 to 5 "
23 " " "	3 to 4 "
50 " " "	2 to 3 "
76 " " "	1 to 2 "
35 " " "	½ to 1 "
41 " " "	1 to 6 months
2 relapsed	
1 died six days after operation of pneumonia.	
4 died of various diseases within from a few months to a year after operation; perfectly sound as regards the rupture at the time of death	
8 were not traced.....	

Total, 257 cases; 166 continued well more than a year.

Of the two relapses one was following the first Bassini operation I had performed in children. The hernia was very large, and the operation imperfectly done, and moreover, this was the only case in which silk was used for buried sutures. Extensive suppuration followed, and relapse occurred within four months. In the other case the relapse occurred nearly one year after operation, and was due to the tearing apart of Poupart's ligament.

Of the 33 patients remaining, 13 had *inguinal hernia*, and were operated upon without transplanting the cord, the technic otherwise being practically the same as in Bassini's method. Of these 13 patients, 11 were traced; 4 relapsed, 2 were well after 5 years, 3 remained well after 4 years, and 2 after 2 years.

Fifteen patients had *femoral hernia*, of which 14

have been traced with the following results: No relapses:

1 well after.....	5½ years
2 " "	4 "
3 " "	2 "
4 " "	1-2 "
4 " "	less than 1 year

Umbilical and Ventral; 5 cases.

Of these 2 were not traced, 2 relapsed after operation, and 1 was reported well after 2 years.

Summary of Results:

Bassini's method: 257 cases; 249 traced; 1 death (pneumonia).....	2 relapses
Cord not transplanted 13 cases; 11 traced; 4 "	
Femoral 15 " 14 " no "	
Umbilical and ventral 5 " 3 " 2 "	

In compiling these statistics 20 cases have been added in which operation was performed between June 1st and October 1, 1897. It has been stated by some writers, especially by Kocher, that operations upon children do not afford a good test of the value of Bassini's method. I will simply say that in my cases in patients over fourteen years of age, 150 in number, this method was most frequently employed, and the results were almost if not quite as good as in children; there was no mortality and but two relapses.

CLINICAL MEMORANDA.

CASES OF PARALYSIS OF SOME OF THE OCULAR MUSCLES.

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OF PHILADELPHIA;

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THE following cases of paralysis of some of the ocular muscles, taken from my private records and from those of the Ophthalmic Department of the Jefferson Medical College Hospital (service of Dr. Geo. E. de Schweinitz), are reported, not because of any unique features in their symptomatology but because they are fairly illustrative of some of the causes which occasionally give rise to this condition and of the means adopted for its relief.

CASE I. *Oculomotor Paralysis Associated with the Appearance of the Menstrual Function.*—H. S., female, aged fifteen years, was referred to me by Dr. A. F. Allman, under whose care she had been during a short time only, for partial left oculomotor paralysis, which had existed fourteen months. At the time of my examination, the eyeball was turned outward and downward and the greatest exertion failed to move it in the slightest degree upward or inward. The lids had been entirely closed during the first few weeks after the appearance of the paralysis. The upper lid could be elevated about one-third of the usual distance. There had also been moderate dilatation of the pupil and paralysis of accommodation, but both had regained their normal

condition. Diplopia and the altered carriage of the head was still present. A high compound hypermetropic astigmatism existed, for which she was wearing proper correcting lenses.

The paralysis came on very gradually, about five days elapsing between the first appearance of diplopia and the complete loss of accommodation and drooping of the upper lid. Two weeks after the beginning of the ocular symptoms, menstruation appeared for the first time and was exceedingly scant in quantity, the patient having been in ill health (presumably on this account) for four weeks. Rapidly increasing doses of potassium iodid, and later, galvanism, strychnin, and pilocarpin were administered. Under this treatment the lid regained most of its power and some of the strength of the ocular muscles returned, but not enough to do away with the diplopia and the disfiguring squint. Orthoptic exercises were faithfully employed and during several weeks the patient wore a shield over the unaffected eye, thus compelling the use of the paralyzed eye, but no improvement was observed from either of these measures.

It was then thought best to attempt some operative procedure, one and one-half years having elapsed since the beginning of the paralysis, and the chances of improvement being fairly stated, the advice was accepted. A 20° prism, with the base toward the nose, over the right eye, and a 33° prism, with the base upward, before the left eye were required to produce single vision. The external rectus muscle of the affected eye was first divided, and this correcting only a small amount of the deviation, tenotomy of the external rectus of the right or unaffected eye was next performed. After healing, there were required, to fuse the images, a 2° prism, with the base inward, over the right eye, and a 20° prism, with the base upward, over the left eye. The inferior rectus of the left eye and the superior rectus of the right eye were next divided at different sittings. The result is even better than had been anticipated as the eyes are now straight and the diplopia entirely relieved for the central portion of the field, though the paretic muscles are, to be sure, somewhat deficient in power.

CASE II. *Paralysis of the External Rectus Produced by Exposure to the Weather.*—A. C., female, aged forty-two years, presented herself at the Jefferson Medical College Hospital complaining of double vision which had been present eight weeks. A previous attack of diplopia had occurred two years before and after a few weeks had disappeared without treatment. On this account she had failed to seek advice for the present condition until it had existed eight weeks.

There was marked diplopia, with altered carriage of the head, false projection of images and a slight convergent strabismus which increased somewhat when the patient became excited. Specific history was denied, but formerly there had been excessive use of alcohol and of snuff. Two days before the present attack she had been exposed for a long time to the weather, the day being cold and rainy. This exposure seems to have been the undoubted exciting cause of the paralysis, probably giving rise to an exudate which pressed upon the sixth nerve

somewhere in its course between its exit from the base of the brain and entrance into the muscle.

The paralysis entirely disappeared under the administration of rapidly increasing doses of potassium iodid.

CASE III. Congenital Paralysis of the External Rectus.—C. T., male, aged forty-six years, complained of inability to turn his left eye outward beyond the median line, a condition which had existed since birth. Diplopia had never been observed and there was no altered carriage of the head or false projection of images. There was, however, a marked deficiency in the converging power, the eye rotating not more than 15° inward. The inward movement of the right eye was also somewhat impaired. The visual acuity was normal and there were no lesions of the fundus.

It is impossible to determine by examination during life the exact cause of the trouble in these cases. In the present instance there may have been some affection of the nucleus of the nerve during intra-uterine life, or an anomalous insertion of the muscle into the sclera, or even the absence of the muscle itself.

CASE IV. Traumatic Paralysis of the Superior Rectus.—M. B., a widow, aged twenty-one years, fell against the corner of a mantel, striking the left eye through the closed lids. There was considerable pain, but this wearing off after a short time she thought no more of the accident. A few hours later, however, she noticed that she saw double. The diplopia continued to grow worse and she was annoyed very much by the false projection of the images and continued dizziness during attempted employment of the eyes. This condition continuing for a week she presented herself for advice.

Examination showed a slight discoloration of the upper lid where it had been bruised. The upward movement of the left eye extended but a short distance above the normal level of the eyes when looking directly in front. Diplopia began as the test object was brought near this level, was crossed, the image seen with the left eye being somewhat higher than that seen with the right, and the lower end of the false image was slightly inclined toward the real image.

The same treatment as described in the other cases was employed, but after several months there remained a slight vertical diplopia, for which the patient is now wearing with absolute comfort a 5° prism divided between the two eyes.

The patient evidently had had a small hemorrhage somewhere along the orbital portion of that filament of the third nerve supplying the superior rectus muscle which was not entirely absorbed, or which being absorbed, left its impress, as it were, upon the nerve fibers so that they could not regain their original power of transmission.

CASE V. Oculomotor Paralysis Appearing During an Attack of Influenza.—A. H., female, aged sixty-five years. The patient first noticed diplopia and drooping of the upper lid of the right eye on the third day after the beginning of an attack of influenza. Three days later the ptosis was complete, and the external ocular muscles supplied by the third nerve were completely paralyzed. The accommodation of the eye was unaffected. Upon ele-

vating the upper lid of this eye, marked divergent strabismus was observed. The same treatment employed in the other cases was used. As the patient was brought to the hospital for consultation only, remaining under the care of the family physician, no subsequent history was obtained.

A CASE OF DOUBLE HARE-LIP.

By JOHN A. WYETH, M.D.,
OF NEW YORK.

THE child whose pictures accompany this article was brought to me when three months of age. He presented an extremely bad form of double hare-lip with complete cleft of the bony and soft palate. The vomer was unnaturally long, and the premaxillary bone, which pro-

FIG. 1.



Showing appearance of child previous to operation.

jected from the end of the vomer was covered by a little peninsular of integument which was continuous with the end of the nose, to which it was attached by a small pedicle.

FIG. 2.



Showing appearance of child just after the operation, as well as silk-worm-gut anchor.

As it was impossible to save the premaxillary bone and carry it into a position to complete or perfect the anterior

arch of the alveolus, I removed this bony process, taking great care to dissect up and preserve the little particle of integument covering it, which I used in making the septum of the nose.

It was also necessary to cut away about one-half inch of the vomer, which being done, I was enabled to so fashion the lip on either side of the fissure that by free dissection of the tissues from the maxillæ the denuded edges were brought together, as shown in Figs. 3. Silkworm-gut sutures were used, as well as the silkworm-gut anchor,

FIG. 3.



Showing appearance of child two weeks after the operation.

Fig. 2, which I employ in all these operations. This feature of the method is, in my opinion, essential to success.

The sutures were removed on the tenth day and the child recovered without any interruption. The interval between the pictures Nos. 1 and 3 was two weeks.

HOSPITAL REPORT.

TREATMENT OF TYPHOID FEVER IN ROOSEVELT HOSPITAL.

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FOR a number of years my autumn service at the Roosevelt Hospital has included the months of September and October, the time during which typhoid fever is most prevalent in New York City. An exception, however, must be recorded for this year, 1897, as the patients with typhoid fever admitted during the months mentioned were but half the usual number.

In discussing the various modes of treatment recommended for this affection, it is too often the custom to rely upon the mortality percentage as affording the chief indication of the success of the method employed. In hospitals, however, this may be quite misleading; because, if the course of this prolonged fever can be advantageously modified by any particular line of treatment, then the earlier it can be resorted to in each individual case the better will be the result. In hospitals a large

proportion of the patients are not admitted until after they have been ill for a considerable time, and are then brought to the institution as a last resort. Under such circumstances it is plain that the rate of mortality would scarcely afford a fair criterion of the efficacy, or the reverse, of any form of treatment.

A much more trustworthy indication as regards the effects of treatment in a hospital is the actual percentage, in the non-fatal cases in a given series, of the occurrence of certain prominent symptoms which are characteristic of the course of typhoid fever, either when left to itself or when treated more or less according to what may be termed the expectant method. In the following observations I have, therefore, selected for comparison the percentage, among 69 patients who recovered from typhoid fever, of the occurrence of diarrhea, tympanites, delirium, and hemorrhage: The total number of patients with this disease admitted to my wards during September and October of 1895, 1896, and 1897 was 75, of whom 6 died, or 8 per cent. An analysis, however, of the histories of these fatal cases shows how little they can be considered as regards the question of treatment.

Of the total number, 50 cases occurred in males and 21 in females. Of the males, the youngest was 7 years old, the oldest 57; 4 patients were under 10 years of age, 15 between 10 and 20, 33 between 20 and 30, 21 between 30 and 40, and but 2 were over 40 years of age.

Diarrhea.—Among the 69 cases in which recovery occurred diarrhea was present on admission to a marked degree in 13, and moderately so in 2. In all of these cases it ceased within a week, except in one, that of a woman, in whom it continued until the fortieth day. Subsequent to admission diarrhea occurred in 5, but was moderate in each, and ceased within from three to five days. Hence, in a total of 69 cases, only 5, or 7 per cent., had any looseness of the bowels after beginning treatment, and none required special medication for it.

Tympanites.—This was present on admission in 11. In each it disappeared within five days after beginning treatment, except in one case, in which it continued nine days. In one case, admitted on the sixth day of the disease, it developed moderately two days later, coincident with a high temperature, and then ceased within five days. Thus, out of 69 patients, there was only 1 who developed this symptom after admission.

Delirium.—This symptom was noted in 11 patients, but of these, 9 were delirious on admission. The remaining 2 had delirium after beginning treatment, and it is significant that in each of these it was present only while the use of the cold bath had to be omitted, owing to the occurrence of intestinal hemorrhage. In each it was very moderate, and did not last a week. Of the 9 patients who were delirious on admission, in only 1 case did this symptom continue ten days after treatment was begun. Therefore, out of the total of 69 patients, only 2 became delirious in the hospital, and 58 did not have delirium at all.

Hemorrhage occurred in 4 cases, and in 1 was fairly severe. One of these patients was admitted on the four-

teenth, and 1 on the twenty-first day of the fever. In the first it occurred on the nineteenth and twentieth days, and in the second on the twenty-third and twenty-fourth days of the fever.

Relapses occurred in 5 out of the total of 69 cases.

I think that this showing indicates that the course of this disease was materially altered by the manner in which its common functional derangements were either prevented, or else soon controlled when already present when the treatment was begun; for as just stated, after treatment was started, there were only 5 cases of diarrhea, in each of which it was very temporary, 1 case of moderate tympanitis, and 2 of transient delirium. Similar statistics of the course of typhoid fever under treatment might be collated from the Roosevelt Hospital records for a number of years past, so that the occurrence of such symptoms as sordes, dark, dry tongue, meteorism, diarrhea, delirium, or subsultus tendinum, were but rarely seen, except when already present at the time the patients were admitted to the hospital.

The clinical histories of the 6 patients who died are briefly as follows:

CASE I.—Male, aged seventeen years, admitted on the eighth day of the disease; temperature, 104° F.; pulse, 108; respiration, 36; persistent vomiting. The continued frequency of respirations and the early hyperpyrexia present in this case led to suspicions of pneumonia, but no physical signs of this affection were discoverable until eight days after admission, when consolidation suddenly developed at the base of both lungs, and he died on the following day; no autopsy. This clearly seemed a case of mixed infection from the first.

CASE II.—Male, aged thirty-two years, admitted on the tenth day of the disease; very delirious; temperature, 105.4° F.; pulse, 116; respiration, 28. He became rational nine days after admission, and seemed to be convalescing, when, according to the rule to administer the cold bath on the temperature reaching 103° F. he was having his single daily bath, he suddenly died on being transferred to his bed. Death occurred on the eleventh day after admission. Autopsy showed the intestinal ulcers to be nearly healed, and no other lesion was discovered to account for the fatal issue, which, therefore, may have been due to syncope.

CASE III.—Male, admitted on the eleventh day of the disease, with a very weak pulse, great tympanites, and continuous diarrhea until death which occurred on the sixth day after admission. The peculiarity in this case was that at the autopsy extensive ulcers were found in the large intestine, but none whatever above the ileocecal valve.

CASE IV.—Male, aged thirty-five years, admitted on the sixteenth day, with high temperature, rapid pulse, and noisy delirium. He died on the eighth day after admission.

CASE V.—Male, admitted on the twenty-first day; very delirious, and lived but two days.

CASE VI.—Male, aged thirty-three years, presented a history of having been a hard drinker. His urine was albuminous, with numerous granular casts, and he was threatened with gangrene of the left leg from thrombosis. He finally succumbed with pneumonia and car-

diac symptoms. At the autopsy, besides the intestinal ulcers, evidences of recent endocarditis, bronchopneumonia, and chronic nephritis were found.

Treatment.—The treatment adopted at the Roosevelt Hospital is as follows:

If a patient be admitted before the end of the second week of the disease, 5 grains of calomel and 35 grains of compound jalap powder are administered on three successive nights. The effect of this measure in securing intestinal antiseptics is almost invariable. The temperature drops from one to three degrees on the day following the first dose, and if diarrhea be present, this seems to be the quickest and most effectual means of arresting it. After the eighteenth day of the disease the calomel treatment is omitted on account of the liability, after this time, of intestinal hemorrhage.

The next therapeutic measure is directed to the prevention of tympanitis and pea-soup diarrhea. It seems to me that typhoid fever is too exclusively regarded as an intestinal affection, when in reality the stomach is almost as much affected, with the result that its peptogenic power is more reduced, as Fenwick has shown, in this disease than in any other affection, acute or chronic. In fermentation of the gastric contents begins a disorder which soon results in meteorism and diarrhea. I have therefore, during many years, prescribed 10 grains of saccharated pepsin with 10 grains of carbonate of bismuth to be taken every three hours, making 80 grains of each in the twenty-four hours. The result has been that tympanitis rarely supervenes. Bismuth is the most effective and least irritating of the intestinal antiseptics. If the diarrhea persists it is my custom to double the dose of bismuth. Whenever the tongue begins to be dry at the tip, 15 minims of the oil of turpentine is given in emulsion every six hours. Moderate doses of strychnin and caffeine are sometimes administered for symptoms of cardiac debility, but never digitalis. The compound spirit of sulphuric ether (3 i in camphor water) seems the best remedy for restlessness with prostration. Alcoholic stimulants are also employed according to the usual rules.

Owing to the extremely reduced condition of the digestive power, milk, the only diet allowed, is always diluted one-half with lime water, the latter being an antiseptic as well as a diluent.

The cold bath is resorted to as soon as the temperature is above 103° F. The patient is actively rubbed while in the bath, and taken out when the temperature falls to 101° F. It should be emphasized that the cold bath is beneficial in this fever, not simply as an antipyretic, but as an eliminative through the kidneys. The symptoms of this fever are those of toxemia, and the powerful effects of the Brand method in increasing the toxic coefficient of the urine have been amply demonstrated.

MEDICAL PROGRESS.

Present Status of Infant-feeding.—HOLT (*Archives of Pediatrics*, November, 1897) finds that all authorities are agreed upon the following points: (1) Good breast-milk is the best infant food. (2) No substitute for breast-milk

can be trusted which does not furnish essentially the same elements, fat, sugar, proteids, etc. (3) These elements are found only in the milk of other animals, cow's milk being the only one available for general use. (4) Cow's milk requires some modification before it is fed to infants; first, because the proportions of the different elements (fat, sugar, etc.) are not the same as in breast-milk; and second, because some of these elements, notably the proteids, are not identical with those of breast-milk.

Other important questions in connection with infant-feeding are still in dispute. Thus the question of milk sterilization is not agreed upon by all. Holt thinks that milk which is sterilized thirty, sixty, or even ninety minutes at a temperature of 212° F. is not unfitted for infantile digestion. As the keeping qualities are greatly increased thereby, no doubt sterilization and Pasteurization will continue to be used, although the aim ought to be to produce perfectly clean milk, thus rendering sterilization unnecessary. Of infant foods and condensed milk he has little good to say. Within the past few years he has seen nearly twenty cases of scurvy in children who were fed exclusively upon some one of the various patented infant's foods. Those which require the addition of fresh cow's milk are naturally better than those which are not to be mixed with milk. If a food contains a large amount of unchanged starch it is successful in inverse proportion to the amount used. It may serve a useful purpose as a diluent of the milk, and not affect the nutrition of the child one way or the other. Great gain has been made by the establishment of milk laboratories, and by the prevailing accurate knowledge in respect to milk modification. It remains to be seen whether the minute fractions of percentage of the different elements upon which some writers have insisted are really necessary, and whether equally good results may not be obtained with approximate proportions of fats, proteids, etc. The field of infant-feeding is by no means exhausted and will repay anyone who will devote time to its study.

Tuberculosis from Butter.—GRONIG (*Centralbl. für Gynäk.*, September 30, 1897) examined 17 vessels of butter and injected portions of the butter into 51 guinea-pigs. The result was that 11 of the guinea-pigs were found, *post-mortem*, to present the pathologic appearances of tuberculosis. Of these 17 specimens of butter 8 produced tuberculosis. Unfortunately the diagnosis was not confirmed by culture, inoculation experiment, nor was a histologic examination made to determine the character of the lesions.

OBERMULLER examined 14 specimens of butter, injecting 5 or 6 animals with them, and found tubercle bacilli in every case. Here again, neither culture nor inoculation experiments were made to control the diagnosis. It is only fair to state that in this case all the specimens of butter were obtained from the same source, and one which had previously been determined by the milk supply to be tuberculous.

RABINOWITSCH examined eighty specimens of butter from various sources, and in no instance were tubercle bacilli found.

PETRI says he has tested one hundred samples of butter, and found tubercle bacilli in thirty per cent. of them. In sixty per cent. of all the samples he found bacilli which might easily be confounded with tubercle bacilli. The question evidently requires further investigation.

The Use of the Phonendoscope in Surgery.—VAN ARSDALE (*N. Y. Polyclinic*, August 15, 1897) praises the use of the phonendoscope in surgical diagnosis. In the case of a broken bone, over which a scratching noise is made, the instrument will detect the difference of such a noise from one made over a bone which is uninjured; as, when a fracture is present, the break in the bone obstructs the passage of sound, and again, the presence of soft tissue between the ends of a broken bone may be detected in the same manner. He has found this instrument to be of great value in the study of aneurism, in the diagnosis of the extent of tumors the density of which is different from that of surrounding tissues, in the detection of the presence of small quantities of fluids in the joints, and especially in the diagnosis of abdominal tumors. He employs a phonendoscope which is fitted with a pin so that the sound is received upon a very small point. The ease with which the colon and intestines may be located and traced appears to be one of the great advantages of the use of this instrument. By means of different notes transmitted through it the author was enabled to locate a growth of the colon which could not be detected by the ordinary methods.

THERAPEUTIC NOTES.

Palpitation of the Heart.—HUCHARD (*Wsen. Med. Blät.*, July 15, 1897) for purposes of treatment divides cases of palpitation of the heart into those varieties which are, and those which are not, benefited by cardiac stimulants. Those cases arising from the ingestion of poisons, coffee, tobacco, and drugs, such as sulphate of quinin, are usually relieved by a removal of the cause. Palpitation due to gastro-intestinal disturbance, usually occurs at night, and is associated with dyspepsia and hyperacidity. For the most part these attacks may be cured by large doses of alkalies, and regulation of the diet. Iron, if taken in too large quantities, may also produce palpitation.

There is no necessary connection between cardiac palpitation and cardiac disease. The diseases usually accompanied by palpitation, and which are improved by digitalis and similar remedies are beginning aortitis, acute endocarditis and pericarditis, adhesions of the pericardium, and mitral insufficiency. In such cases the following prescription will often be found useful:

℞ Quiniaz hydrobrom.	gr. lx
Digitalis	gr. xxx
Ext. convallariæ	gr. xxx.
M. Ft. pil. No. xl.	Sig. Two to four pills daily.

For Infantile Constipation.—CARRIERE (*Bull. Gen. de Therapeut.*, August 20, 1897), in speaking of infantile constipation, says that the alimentation should first be attended to. If the child is on the breast, the number of nursings is probably at fault; or, it may be necessary to prescribe

exercise for the mother. At the period of weaning arrow-root and other preparations of a somewhat laxative character will be of service. A little soup, preferably that of chicken, with tapioca, or bits of bread, may also be given. In other cases, massage, laxatives, or suppositories may be employed. Massage is practised as follows: Every morning the palm of the hand is oiled with vaselin, and with its circular motions are made around the umbilicus, beginning in the right iliac fossa. The pressure should be light, and the whole treatment should not exceed ten minutes. After the first year the massage should follow the course of the large intestine. As laxatives, the author recommends castor oil and magnesia. In order to secure an immediate evacuation injections or suppositories may be used. Injections should not be larger than 2 ounces during the first six months, and 4 ounces after the first year. Boiled water, a weak solution of camomile, or water with a spoonful of oil of sweet almonds may be used.

The Treatment of Burns.—WERNER (*Phila. Polyclinic*, October 30, 1897) advises the following simple and at the same time rational rules for the treatment of burns of the third degree: (1) Place the burned member or surface in a carbolic bath of from two to five per cent., depending upon the age of the patient and the extent of the injured surface. A threefold effect is gained by this, *vis.*, antiseptis, aseptis, anesthesia. (2) Remove all the carbolic solution by a second bath in a physiologic saline solution. (3) Dust the entire surface with a powder containing acetanilid (1 part) and compound stearate of zinc (5 parts). (4) Cover the surface with narrow strips of Lister's green protective, or, if economy must be studied, with thin gutta-percha tissue. (5) Place ten to twenty thicknesses of wet sublimated gauze over and around the surface, and bandage.

The dressings should be changed as often as necessary. The advantages of this treatment over that by lotions, oils, and salves, are freedom from any accumulation of fats or dead epithelium, encouragement and protection of the new epithelium, and finally, almost the entire absence of fibrous tissue in the cicatrix, and avoidance, therefore, of resulting deformities.

A Treatment of Uterine Colic.—AUDERBERT (*Bull. Gen. de Therapeut.*, August 23, 1897) objects to the customary treatment of uterine colic by means of ergot or intra-uterine injections. Both methods are ineffectual and may be dangerous. As a curative treatment tincture of opium in 15-drop doses per rectum is most to be recommended. This usually succeeds in relieving the colic, but of course it is a little constipating, to avoid which chloral, bromid of potassium, or antipyrin may be substituted. The extract of viburnum prunifolium, either alone or in combination, possesses a marked sedative action. Twenty drops of the following mixture may be given every two hours in a warm drink:

℞ Ext. viburn. prun. fl. } aa . 3iv — m.
Ext. hydrast. canad. fl. }

If the colic is due to fecal or urinary retention the

bladder and rectum should first be evacuated, and then, between the pains pressure should be made upon the uterus to facilitate the expulsion of clots. Vaginal injections at a temperature of 115°–120° F. act in the same manner. If these measures are not successful in emptying the uterus intra-uterine injections may be employed with care and a low pressure. On account of their danger they should only be used when other remedies have failed.

Nervous Vomiting.—MEISL (*Ther. Woch.*, September 19, 1897) says that nervous vomiting produced by disturbances of the nervous system, both central and peripheral, without external irritation or anatomic lesion, is a purely functional disorder; it occurs without any over-exertion and is independent of the quality and quantity of the ingested food. It varies in relation to the different kinds of diet, and is often absent when particles difficult of digestion have been eaten, and may be present when only suitable food has been taken. For treatment he recommends the following:

℞ Menthol gr. i
Sodii bicarb. gr. c.

M. Ft. in caps. No. xii. Sig. One capsule three times a day.

In severe cases it may be necessary to give suppositories, each containing $\frac{1}{2}$ grain of belladonna and $\frac{1}{2}$ grain of codein. Oxalate of cerium, preparations of bismuth, and alkalis in large doses are also recommended. In the painful form papayotin renders good service. It is given in combination with soda. With some patients the painting of the pharynx with a ten-per-cent. solution of cocain results in a cure. Treatment directed to the strengthening of the body will be of help in all instances.

The Treatment of Whooping-cough.—WERTHEIMER (*Ther. Monatshefte*, September, 1897) lays great stress on the dietetic and hygienic treatment of this disease. He objects to the use of morphin, because if given in doses sufficient to have any effect it leads to a retention of secretion in the lungs which may result disastrously. Bromoform has proved valueless in his hands. He has seldom used quinin. He advises, however, a mixture of belladonna and ammonia bromid, as follows:

℞ Ammonii bromidi gr. xviii
Ext. belladonnæ gr. ¼

Div. in chart. No. xii. Sig. One to three powders daily.

He especially recommends the use of antipyrin in doses of $\frac{1}{2}$ grain for children under one year of age. It should be ascertained that the kidneys are sound before this drug is administered. In order to enable the child to get rid of the thick mucus, alkaline mineral waters should be given during the course of the disease. There is no such thing as reliable local treatment. This writer finds that children under one year of age have whooping-cough as frequently as older children, and that in them it is more dangerous.

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SATURDAY, DECEMBER 18, 1897.

THE PRESIDENT'S MESSAGE TO CONGRESS AND NATIONAL QUARANTINE.

THE President in his Message, and the Secretary of the Treasury in his annual report, show a lively appreciation of the defects of our quarantine laws. Both recognize that their inefficiency is due to lack of uniformity and cooperation.

The Secretary recommends that the law of 1893 be amended so that National quarantine regulations shall everywhere prevail, and that local interference with them shall be impossible. This law should also be so amended that the Secretary of the Treasury may promptly establish a quarantine station whenever or wherever public safety demands it, without regard to State or local establishments or authorities.

The President sees in the Marine Hospital Service the proper agent for putting these ideas into effect, and recommends that its powers be sufficiently enlarged to accomplish these ends, *viz.*: that the functions of National quarantine and the supervision of the Public Health be delegated to the Marine Hospital Service.

Insecure tenure of office is a serious, if not fatal, weakness of State or local quarantine. Subject to political changes, or even hasty popular whims,

how can any one expect that officials, under such circumstances, will be thoroughly efficient.

The defects of this system have just been glaringly demonstrated in Louisiana, where the officers of the State Board of Health, probably as efficient as any, have been compelled to resign by an outburst of popular clamor.

Quibble as they may over invasions of State rights, it is about time for the people to perceive that, in some matters, Federal authority must be supreme, and one of these is the protection of the country from alien disease and the management of epidemics when such occur. If to these powers could be added authority to compel municipalities to adopt modern sanitation, the situation would be quite ideal.

SIX-DAY BICYCLE RACES.

"THE six men whose brains have given away to this terrible strain are among the leaders in the van, and it is the efforts that they have put forth to hold their coveted positions which have cost them their sanity. These men are fit for little else than a ward in a lunatic asylum."

This is quoted from an evening newspaper's description of the closing scenes of a six-day bicycle race that has just been held in the most civilized center of the Western Hemisphere. It furnishes food for serious reflection. That a people who decry cock fighting, dog fighting, and even "ratting" for amusement, and who are horrified beyond expression and tolerance at the thought of an encounter between a toreador, a few banderilleros and a bull, should permit one of the most harrowing spectacles than can be imagined to continue without protest, or indeed refrain from taking matters into their own hands and stopping it *tour de force* is cause for wonderment.

The physiologic and psychic incidents of the race have a lively interest for the alienist who sees in it the corroboration of an experiment in the artificial production of insanity made some time ago by Mendel of Berlin. This savant showed that if animals, rabbits let us say, were placed on a flat surface, and the surface caused to rotate continuously a number of times per minute during a few days, the animals would develop all the physical manifestations of general paresis. The experiment as performed

by Mendel had serious limitations which heretofore have seemed impossible to overcome, but now the winners in a six-day bicycle race have lent themselves to a repetition of the experiment, and the results may be utilized to corroborate Mendel's statements. In reality, going around the short circular track in the Madison Square Garden is practically the same as being whirled on a revolving table, save that there is added thereto the element of physical effort and consequent physical exhaustion. It is interesting, therefore, to note the symptoms of disordered mind which have been engendered in the six men who have been adjudged insane by the secular press. These symptoms seem to be irascibility, unamenability to suggestion and control of "keepers and trainers," visual and auditory hallucinations, delusions of persecution, and of being poisoned, fighting mania and dementia. One man's mind is "a complete blank." It is difficult "to restrain another from getting over into the boxes and attacking the spectators." Aside from the fact that the latter richly deserve the most summary punishment which could possibly be inflicted upon them for being present at such a disgraceful exhibition, it is to be noted that it was not this laudable object that prompted the rider to belligerency, but a conviction that those in the boxes were persecuting and conspiring against him.

We have not been sufficiently apprised of the physical signs which the participants showed to guide us in making a differential diagnosis, or even a diagnosis at all of the riders' insanity, although tremor, incoordination, and a degree of motor paresis seem to have been among them. Acute confusional insanity caused by exhaustion and rotation seems to approach nearest the mark.

Fully realizing the futility of words to prevent a repetition of one of the most disgusting, demoralizing, and pernicious contests parading in the guise of "sport" known to humanity, we are inclined to propose a plan which, if put in operation, will quickly terminate it. When the time for the next yearly exhibition comes around, let it be made known that a certain number of contestants are to be entered with a view of determining, by a commission appointed for that purpose, how quickly the sanity of the riders can be overthrown, and the form that the alienation which it produces assumes. In other words, let us have a vivisection experiment

on a colossal scale, without anesthetics, and with human beings for subjects. In order to insure the realization of the success of the experiment, we would suggest that the track be shortened, to make a greater number of laps to the mile, not with dishonest intent, as it is alleged was the case this time, so that new records might be established, and the necessary impetus given to promoters to get up a new "contest," but that the experiment may parallel more closely that of the Berlin professor. It might be advisable, moreover, to utilize the center space enclosed by the track by setting up a number of tables, revolved by machinery, on which the same number of men as there are bicyclists may be strapped and revolved as many hours per day as their fellow-victims are kept on their wheels. Then the two sets of mentally dethroned beings may be contrasted and compared, and thereafter the most fatal form of "sport" enjoyed more fully.

We feel convinced that one trial of this will so eradicate six-day bicycle races from the program of sports that they cannot be resuscitated as long as the memory of the present generation continues.

THE NEW YORK BOARD OF HEALTH AND PULMONARY TUBERCULOSIS.

THE history of the movement which led the New York Board of Health to classify pulmonary tuberculosis among the communicable diseases, and to render compulsory the report of instances of this affection occurring in private and public practice, was reviewed in THE MEDICAL NEWS of February 20, 1897. A few weeks later, THE NEWS took occasion to defend the action of the Health Board in its effort to limit the spread of this most ravaging of all human diseases, and to urge upon the profession the desirability and the necessity of sustaining the Board in its work against the common enemy. At this time, when a committee of the Medical Society of the County of New York is considering the legality of much of the work in which the Board of Health is engaged, and when the Board of Estimate has allowed the Health Board \$60,000 for its care of consumptives for the year 1898, the special report to the Mayor, reviewing the history of its action in relation to tuberculosis of the lungs, is interesting and instructive.

Sanitary authorities and bacteriologists, as well as clinicians, have held during some years that the

transmission of pulmonary tuberculosis is by means of the sputum, which, becoming dried after expectoration, circulates as dust. Though there are a few dissenters from this view, we will assume, *causa loquendi*, that this is a scientific truth. It must be further agreed that the danger of close association with consumptives lies mainly in the improper disposal of the expectorated matter, by allowing it to become circulated in the atmosphere rather than destroyed by means of incineration, the use of antiseptics, or by boiling it or the material in which it is contained. In its report the Board of Health announces that it is on the premises above deduced that its action in relation to tuberculosis is based. It substantiates this position by the authority of its pathologists, consulting pathologists, and by numerous citations from French, American, and German writers of eminence. It proves beyond cavil that the position it has assumed as to the manner of the extension of phthisis is scientifically correct, and in doing this it has overcome possible prejudice by deducing incontrovertible evidence from several sources outside of its own bureau. The next logical step in the process consists in proving that, with proper assistance on the part of practising physicians, pulmonary tuberculosis can be stamped out or exceedingly limited. We learn from the report that since the Board of Health has investigated the reported cases of consumption (1893 to 1896), the death-rate from tuberculous diseases has decreased 12.8 per cent., and that from phthisis alone 11.3 per cent. That this is not mere coincidence is proven by a perusal of the other vital statistics contained in the report, which show that the number of deaths annually occurring from tuberculous diseases increased or remained at about the same figure for many years previous to the beginning of the official inspection. It must be remembered that this represents but the very beginning of the crusade against consumption, and the report gives evidence of what may be accomplished in the prophylaxis of this disease by citing Flick ("The Prevention of Tuberculosis"), who shows that through legislative enactment tuberculosis of the lungs has practically been banished from the Kingdom of Naples.

The report further contains interesting tables of the distribution of tuberculous diseases in the two

most crowded tenement districts of New York City, the Fourth and Sixth Wards. From these tables the inference is made that even where tuberculosis occurs most frequently it is not uniformly distributed, but appears to be confined within narrow boundaries in certain streets and in certain houses; that prolonged exposure to the atmosphere of the infected rooms is a source of danger, and that proper sanitary measures rigidly enforced will lessen this danger. These measures are of course, inspection, disinfection of rooms, clothing, and bedding, the destruction of the bacilli in the sputum, and the isolation of cases when the necessary hygienic directions cannot or will not be enforced.

The educational work accomplished by the Department cannot be doubted by any one who comes into frequent contact with the tuberculous poor of the city. Although many of the more ignorant of them believe consumption to be directly contagious, this kind of ignorance does no harm, for it makes the patient more careful than he might otherwise be. The more intelligent, on the other hand, seem to be fully alive to the dangers lurking in their sputa, and use every means suggested to prevent the contamination of their neighbors. It may be said that such instruction should issue from the attending physicians, hospitals, dispensaries, etc.; but, as a matter of fact, it is well established that this information was never given to phthisical patients by hospital and dispensary physicians until the initiative was taken by the Board of Health, which has educated the physician in this respect as well as the patient.

The relations which the Department desires to hold toward the profession is tersely but emphatically stated on page seven of the report. The Board has no desire to interfere with the treatment of cases already attended by a physician, whether in a private or tenement-house; it will send no inspector if the attending physician so desires; it will send no circulars of information if the physician in charge will agree to deliver them, or, we are willing to assume, if he will orally deliver the hygienic information and prophylactic data contained in the circulars. Upon the following the Board of Health insists: That all cases of tuberculosis of the lungs shall be reported to its Sanitary Bureau. It is scarcely asking too much of the physicians in this

city to direct a postal-card to the Health Department announcing the discovery of a case of phthisis and stating that all essential hygienic directions and measures are being carried out. Reliance upon the integrity of the Department not to interfere with the treatment or direction of the case need hardly be doubted; for its honest intentions have been demonstrated too frequently in the conduct of contagious diseases to require further comment. Moreover, such reports as those mentioned can be of assistance to the Board in increasing its information in regard to the extent and distribution of the disease in question. A certain amount of arbitrary power must, finally, be conceded to a body possessing such inherent responsibilities as the Board of Health.

So far as the appropriation of \$60,000 for the care of indigent consumptives is concerned, there can be no moral or political objection to it. The greatest authorities, some of whom are cited in this report, are agreed that the most efficient treatment of pulmonary tuberculosis is to be obtained in sanatoria. The well-to-do can afford the luxury of such resorts; but the pauper who is afflicted with consumption has no such place to which he can go. The general public and private hospitals will not receive him, and he must, perforce, remain in his miserable dwelling, a constant source of danger to his companions and even to himself. The Board of Health, we assume, has no intention of assigning its own physicians to the treatment of these cases; indeed, by the action of the Board of Estimate, it is stipulated that the money granted be expended in hospitals already existing which have, of course, their attending staffs. The very poor who will avail themselves of this appropriation would never come under the professional care of a physician in private practice, and therefore, no one, as far as we can perceive, can be injured by this measure. The patient only will be the gainer. Since the city has established special hospitals for the treatment of scarlatina and diphtheria, it is to be hoped that in time it will awaken to the fact that tuberculosis is more fatal than these, more widespread, more ravaging, and demands a hospital devoted solely to its treatment.

Space forbids our going into further details. We would like to speak of the benefits accruing from the official examination of cows and of milk as having

lowered, or having a tendency to lower, tuberculous infection. We would like to go into detail concerning the regulation of expectoration in public places and in public conveyances, a regulation altogether too laxly enforced by the employees of the railroad companies, and a neglect which should be promptly corrected. But these and kindred subjects are a little foreign to our purpose, which has been to show that the position of the Board of Health in its action concerning pulmonary tuberculosis is an honest one toward the community and the medical profession, and that it deserves the cordial support of both.

ECHOES AND NEWS.

Bubonic Plague in India.—Telegraphic news from Bombay reports the bubonic plague still raging at Poona.

Maidstone Typhoid Epidemic.—Up to the first of December the cases of typhoid fever reported at Maidstone, England, numbered 1871.

A Medical Diplomat.—Dr. G. H. Bridgman of Elizabeth, N. J., has been appointed Ambassador and Minister Plenipotentiary to Bolivia.

Tennessee Medical College.—The building of the Tennessee Medical College, at Knoxville, Tenn., was destroyed by fire on the third inst.

Dartmouth Medical College.—The one hundredth annual graduation exercises of Dartmouth Medical College, Hanover, N. H., occurred on November 24th.

University of Chicago and Rush Medical College.—Negotiations are said to be under way looking toward the affiliation of the University of Chicago and the Rush Medical College.

Tuberculosis Hospital for Hamburg.—An unknown benefactor of Hamburg, Germany, has donated 250,000 marks for the purpose of erecting a hospital to accommodate one hundred patients suffering with tuberculosis.

A Doctor as Mayor-Elect of Buffalo.—Dr. Conrad Diehl, recently elected Mayor of Buffalo by a large majority, takes office on January 1, 1898. Dr. Diehl has practised medicine in Buffalo for thirty years, and is well known to the profession and general public.

Dr. Roswell Park.—According to the *Buffalo Medical Journal*, Dr. Roswell Park, who went abroad in search of health, is reported by a friend, who met him recently in Italy, to be in a very much improved condition and expecting to return to his professional duties in the near future.

Sanitarians and the Palace of Versailles.—According to the *Scientific American*, a sanitarian who visits the palace

of Versailles should never inquire about the arrangements pertaining to hygiene and sanitation. In its palmy days it possessed only a single bathroom, which was never used, and its present facilities are no better.

The Late Dr. Harrison Allen.—At a meeting of the Philadelphia Neurological Society, held November 22, 1897, resolutions were passed offering sympathy to the family of the late Dr. Harrison Allen, and expressing a sense of the great loss to science and the medical profession sustained by his death.

Medical Signers of the Declaration of Independence.—According to the *Charlotte Medical Journal* five practitioners of medicine signed the Declaration of Independence: Benjamin Rush of Philadelphia, Lyman Hall of Georgia, Oliver Wolcott of Connecticut, Josiah Bartlett and Matthew Thornton of New Hampshire.

Four Babies at a Birth.—A young woman, twenty-eight years of age, recently gave birth in New York City to three healthy boys, whose combined weight was nineteen pounds. Thirty-six hours later a fourth child was born. The last died shortly after birth, but the three boys are thriving. The mother is doing well.

City Aid to New York Charities.—In accordance with an opinion rendered by the Corporation Counsel the Comptroller is sending out letters to all charitable organizations which have received public aid through mandatory legislation, to the effect that their claims for support will hereafter be considered on their merits only.

A Correction.—In the article on the "Thyroid-gland Treatment of Cretinism," by Samuel H. Friend, M.D., of Milwaukee (issue of December 4th), the weight of the brain should have been given as 50 ounces (1548 grams, not grains), and the weight of the thymus gland should have been 2 $\frac{1}{8}$ ounces (64 grams, not grains).

Measles in Springfield, Ohio.—An epidemic of measles is prevailing at Springfield, Ohio. Owing to the negligence of parents and of physicians in not reporting cases, the spread of the disease is now beyond control, and about twenty-five new cases are reported each day. Over 1182 cases have been recorded to date. But one death has occurred.

Illinois Board of Health and the Bone-setter.—The State Board of Health has notified Atkinson, the "bone-setter," that he will not be permitted to treat patients publicly or privately in that State. In this respect Illinois has shown more energy than was manifested by the authorities when this same man was giving public demonstrations in New York City.

Medical Victims of Yellow Fever.—During the recent epidemic of yellow fever in New Orleans, twelve physicians were stricken with the disease, and two of them died. The same number of trained nurses were also attacked, but all recovered. The two physicians who succumbed to the disease were young men who had not lived long in New Orleans and were unacclimated.

Belladonna and Strychnia Pills Cause Death.—A woman recently died in Brooklyn, N. Y., after taking a number of pills containing belladonna and strychnia. The woman, who was suffering from indigestion, received the pills from a young woman employed in a wholesale drug-house in New York City, and was told by her to take one after each meal. Death was due to an overdose.

Vaccination War at Atlanta.—The large negro population of Atlanta, Ga., is fighting vaccination, and armed policemen are detailed to protect the physicians who are attempting to carry out the law in regard to compulsory inoculation. In several instances it has been necessary to resort to force, and in many cases the negroes disappear and remain away from home for weeks in order to evade the law.

Anthrax among Tanners.—An outbreak of anthrax has occurred among the tanners employed by the Elk Tanning Company at Williamsport, Pa. The disease has been contracted by handling hides, and the men have refused to continue work, in consequence of which the tannery has been compelled to shut down. Two deaths had occurred up to the 9th inst., and the condition of a third patient has been pronounced hopeless.

Pedlars and Eye-glasses.—The Mayor of Buffalo, N. Y., will not permit the sale of spectacles in the street by vendors, and every license granted to a pedler bears the clause: "No eye-glasses are to be sold under this license." The Mayor very properly holds that he has the power to forbid the sale of spectacles on the ground that the eyes not being scientifically tested before purchase, great injury might result to the purchaser.

Pateron's Epidemic of Typhoid.—Up to the 10th inst., ninety-nine cases of typhoid have been recorded in Pateron, N. J., and numerous cases have been reported in Jersey City, Newark, and the surrounding country. The wide dissemination of the disease, which originated in the family of the owner of a large dairy, shows that some amendments to the health laws of the State are required. The New Jersey State Board of Health is in favor of a law which will compel physicians to report all cases of infectious or contagious disease in city and country.

Report of Bubonic Plague in Cuba.—A recent despatch from Cuba to the secular press announces the presence there of the bubonic plague, saying that children and the aged are both attacked. Sanitary Inspector W. F. Brunner, United States Marine Hospital Service, announces that the disease reported as bubonic plague is beri-beri, which he states was until recently confined to the Chinese population, but is said to exist to some extent among the natives of the lower classes. He has not observed the disease except among Chinamen.

Typhoid-fever Epidemic at Lynn, England.—The present epidemic of typhoid fever at King's Lynn and the investigation of its water-supply recall the fact that in 1423 the lack of drinking-water caused such distress that Henry VI. gave powers to cut a canal to Gaywood River, the water

of which was considered to be very pure. Under Cromwell the water-canal was carefully cleaned out and a larger supply provided for. Strange to say, the keepers of ale-houses alone were made to pay for this improved water-supply, thus making the consumption of alcohol promote the cause of temperance.

Abdominal Hysterectomy.—In its report of a recent meeting of the Obstetrical Society of London, *The Lancet* says that Dr. Heywood Smith, in discussing the treatment of myoma of the uterus, referred to a paper which he had read in 1892 on subperitoneal treatment of the stump after hysterectomy, which he contended described the operation better than the term "intraperitoneal," and in which he mentions cases done by Goffe of New York and Milton of Cairo, as well as some by himself. He expressed his gratification that the most advanced operators were pursuing that method to the exclusion of the *serre-naud*, oöphorectomy, and so-called panhysterectomy.

The Responsibility and Annoyances of Surgery.—Dr. Nicholas Senn of Chicago has been served with a writ compelling him to testify in a suit which is being brought in Galena, Ill., by a young woman against two physicians living in that vicinity. Some time ago the two physicians performed an operation for appendicitis on the young woman, and it is alleged she was told that the appendix was removed. Her condition became worse, however, and she went to Chicago, where Dr. Senn performed another operation, whereby the appendix was removed. When Dr. Senn was first summoned he telegraphed that he was unable to leave his practice, but said he would send a deposition. This did not satisfy the Court, and therefore the writ was issued.

An Abuse of Medical Charity.—Last winter a man presented himself at the New York Ophthalmic Hospital and asked that an operation for cataract be performed, stating that he was very poor. The hospital is partly supported by charity. In view of the man's statement, that he was unable to pay much, the physician in charge reduced the usual \$15 per week to \$5 per week for board and attendance. The man was admitted and stayed several weeks. It was then learned that he was senior member of a large wholesale grocery firm, and was worth about \$150,000. The hospital, therefore, presented a bill for \$200, the full rates; the man refused to pay; the hospital sued and received a verdict for the amount. Such vigorous treatment applied to a few of the many similar cases constantly occurring would have a beneficial influence upon the community.

Louisiana Board of Health Resigns.—The commercial community of New Orleans, La., blames the Board of Health of that State for permitting the entrance of yellow fever into the city, for failing to stamp it out sooner, and for all the consequent ills; hence, the Board of Trade issued a call to the various Exchanges to send committees to an indignation meeting which was held December 6th, for the purpose of making a united attack upon the Health Board. Governor Foster, however, forestalled the mer-

chants, and announced through the secretary of the Cotton Exchange that Dr. Oliphant, the President, and other members of the Board of Health who were appointed by the Governor, had placed their resignations in his hands. Those members of the Board who were appointed by the City Council will be asked by the Mayor to resign. It is expected that as soon as the Board can close up its business the members will give way to their successors without protest. Governor Foster will reorganize the Board on different lines. Hitherto, it has been made up principally of New Orleans physicians and citizens, and it is now proposed to appoint men from different parts of the State, as it is thought that a body so constituted will have more influence in regulating quarantine and health matters outside of the city.

Obituary.—Dr. Joseph F. Edwards, editor of the *Journal of Health and Hygiene*, died at Atlantic City, N. J., December 6th, in the forty-fifth year of his age.—The death is announced of Professor Tarnier, the eminent obstetrician, of Paris. Dr. Tarnier graduated in 1857 and succeeded Professor Depaul in the Chair of Midwifery and Diseases of Women and Children in the Paris Medical Faculty in 1884. A special Chair of Clinical Obstetrics was founded for him in 1889. His great work on obstetric medicine, written with the collaboration of MM. Chantreuil and Budin, appeared between the years 1878 and 1886. He was also the author of important works on the hygiene of infancy. He was very active in introducing antiseptic principles into midwifery, and was the recognized leader in his special department of medicine in France.—Dr. Campbell Morfit, the "American chemist," died in London, England, on the 8th inst., in his seventy-eighth year. Dr. Morfit was born in Herculaneum, Mo., and was educated at the Columbian University, Washington, D. C. He organized the Chemical Department of the Maryland Institute, and in 1854 became Professor of Applied Chemistry in the University of Maryland. In 1861 he went to London, where he has since resided.

The Hospital for Scarlet Fever and Diphtheria Patients in New York.—This hospital will be opened on or about December 29th, 1897. It is intended for pay patients, and is situated at the foot of East Sixteenth street, facing the East River. The hospital is a private corporation, controlled by its own Board of Governors, and is not connected with any other institution. The President of the Board of Health and one of the Health Commissioners are *ex-officio* members of the Board. The charges for rooms will be from thirty to fifty dollars a week, nursing and services of resident physician being included. Patients may be attended by their own physicians, if it is so desired. Patients intended for the hospital must not be removed from their apartments until the hospital authorities have been notified (telephone call, 2880 Eighteenth street), and the requirements of the Board of Health complied with. The hospital has its own ambulance and coupé service. The visiting physicians are: Drs. L. E. Holt, W. H. Katzenbach, George M. Swift, F. M. Crandall, W. K. Draper, and R. J. Carlisle. The con-

sulting physicians are: Drs. E. G. Janeway, A. Jacobi, W. H. Draper, R. H. Derby, F. P. Kinnicut, A. A. Smith, and J. W. Brannan. Consulting laryngologist: Dr. H. H. Curtis. Resident physician: Dr. E. L. Dow.

CORRESPONDENCE.

THE EXISTENCE OF RABIES.

To the Editor of THE MEDICAL NEWS.

DEAR SIR: I was very much interested in reading in your valuable journal, issue of November 20th, the report of a discussion on rabies, which occurred at a meeting of the Harvard Medical Society of New York, held October 23d.

I was much surprised to find that still there are members of the medical profession who do not believe that such a disease as rabies exists. As I happen to have seen two cases of this disease, one of which was in a patient who was under my care in the Massachusetts General Hospital, you may find space for a memorandum in regard to them in your journal.

In my early professional days, years before the discoveries of Pasteur, there was a general disbelief here as well as elsewhere among the most enlightened members of our profession in the existence of hydrophobia. I suppose this was owing to the fact that not one of them had ever seen a case. The admission to the Massachusetts General Hospital, at a time when I held a subordinate position there, of a beautiful little girl who had been bitten by a mad dog, accomplished much in overthrowing skepticism in regard to the existence of the disease in question. The patient was about seven years of age, and lived in the suburbs of Boston. While playing in the street she was bitten by a large, strange dog, which then passed on, biting a man a few moments afterward. Certain nervous symptoms which the child developed led her parents to send her to the hospital, where I saw her, and well remember the impression the little thing produced on my mind as she sat on the lap of a nurse in the female surgical ward.

I need not give the symptoms in detail; suffice it to say that the poor child died. This case convinced Drs. John Ware and Jacob Bigelow, both professors in the Harvard Medical School and visiting physicians to the hospital, who had before been skeptical of the existence of such a disease as hydrophobia.

In later years, when I was a visiting physician to the same hospital, I had a case myself, in the person of a youth some sixteen years old, who developed all the usual symptoms and died of the disease, the diagnosis being fully confirmed by Dr. Fitz, at that time pathologist of the institution, who made the autopsy. I am prompted here to make a remark which I think has been made before: The word hydrophobia, as indicating a fear of water, is entirely a misnomer. The young fellow of whom I speak longed for water, as he had an intense thirst; but the least attempt to drink brought on a spasm of the throat which completely prevented swallowing. At my first visit, however, I succeeded in persuading him to make an attempt to swallow a little milk. By making a strong ef-

fort he swallowed a teaspoonful or two, and then the spasm prevented for a few moments any further attempt. After a short delay, however, he renewed the effort, and so by frequent energetic attempts succeeded in getting down the whole tumblerful. As the disease advanced the effort to swallow brought on such tetanic spasms that he was obliged to desist.

In addition to these cases I am well-informed in regard to another, which occurred in my neighborhood in the person of a boy, about twelve years old. The boy was perhaps a mile from home, when a large dog approached, and, without provocation, jumped up and bit him on the eyebrow. As soon as the family physician could be brought to the patient, he washed the wound and then applied his lips to it, sucking it an hour, and hoping to thus extract any venom that might be present. Of course he frequently expectorated, not caring to swallow any poison should such be present. The wound was then cauterized with a red-hot knitting-needle. I ought to add that the courageous physician who tried this experiment was a homeopathist, who later distinguished himself as a soldier during the late Civil War.

It has sometimes been said that the disease known as hydrophobia is an affection of the nervous system, perhaps a delusion of the imagination, and has no real existence. I do not think the cases I have reported can be fairly explained away on any such theory. The little girl was too young to be the victim of a morbid imagination. The second patient had no suspicion of the nature of his disease, the word hydrophobia not being mentioned in his presence. The only history of a bite in this case was that an enraged female flying-squirrel, which he had taken from her nest and little ones a year before, bit him furiously when he reached home and was removing the animal from his pocket.

The last case was also that of so young a patient that it does not seem reasonable to suppose that apprehension had anything to do with the development of the symptoms, especially as the sucking of the wound would have quieted his fears by making him feel, even though the wound were poisoned, that all of the venom had been removed. In the case of the second patient, I could not learn that he had ever been bitten by a dog, though his character indicated that had such been the case he probably would not have mentioned the accident at home, especially if the bite had been apparently trifling. He had been sent to the hospital by a physician who told the family that it was a case of "lockjaw," and they did not know its true nature until after death had occurred.

S. L. ABBOT, M.D.,

Member of the Board of Consultation of the Massachusetts General Hospital.

Boston, December 6, 1897.

ANESTHESIA BY THE SCHLEICH MIXTURE.

To the Editor of THE MEDICAL NEWS.

DEAR SIR: In reply to inquiries in regard to the nature of petroleum-ether, I desire to state that it is identical to benzinum benzin, only of higher rectification—i. e., higher boiling-point. Benzin, as usually found at

pharmacies, has a boiling-point of 55° C., and is, therefore, not applicable for use in the Schleich mixture, which requires benzin of a boiling-point of 60° to 65° C. I have used the Schleich mixture now in ten cases, substituting rhigolene (which is benzin at 70° C. boiling-point). This mixture has worked as well as the original, and I consequently recommend it for present use. This highly rectified benzin, or rhigolene, is not obtainable at an ordinary pharmacy. I have asked Squibb & Son to provide a supply of benzin of the proper degree of rectification, and to place it on the market for use in the Schleich mixture.

Yours truly,

M. L. MADURO, M.D.

NEW YORK, December 11th, 1897.

OUR PHILADELPHIA LETTER.

[From our Special Correspondent.]

NEW PROVISIONS FOR THE CARE OF THE CHRONIC INSANE—COLLEGE OF PHYSICIANS OF PHILADELPHIA—PHILADELPHIA OBSTETRICAL SOCIETY—JEWISH HOSPITAL—EXAMINATION OF STUDENTS' EYES AT THE UNIVERSITY OF PENNSYLVANIA.

PHILADELPHIA, December 13, 1897.

IN order to relieve the overcrowded condition which exists in the large State insane asylums, it is proposed by the State Board of Public Charities to remove all chronic cases from these central institutions and to distribute them among the various smaller county hospitals and almshouses. For a number of years past the congested condition of our general State insane asylums has hampered their work in many ways, and this plan for the removal of the great mass of the indigent chronic insane will no doubt solve the difficulty which has existed so long, and will result in many improvements from both socialistic and economic points of view. Under the new system, for which, by the way, provision was made some six months ago by an act of legislature, the State institutions will contain only the acute, recent, and curable class of cases such as could not be treated to the best advantage in the county hospitals, and will also continue to care for the criminal insane, until further provision is made for such patients. It is stated that there is ample room in the several county hospitals for all the transferred patients, so that additional institutions will not be necessitated.

A stated meeting of the College of Physicians of Philadelphia was held on December 1st. Dr. John B. Deaver read a paper on "The X-Ray Pathology of Fractures about the Elbow," the leading feature of which was the demonstration of the value of fluoroscopic examinations in this class of cases, by which it was shown that not infrequently a chipping off of the radius, not revealed by the ordinary means of examination, could be seen by the Röntgen-ray. A number of skiagraphs illustrating the speaker's topic were shown on a screen by stereoscopic projection. Dr. F. Savary Pearce read a paper, entitled "A Study of the Blind," in which 180 blind pupils at the Pennsylvania Institution for the Blind were analyzed as to their mental and physical status for comparison with those individuals possessing normal sight. Dr. Pearce's investigations showed that the blind are not "but seeing people in the dark," as the French school teach, but that they

are a distinct class of human beings with individual mental characteristics due to loss of the important function of sight, and that their vital capacity and physique is below that of seeing people of the same social standing; it was also shown that, as a rule, the blind are prone to anemia, due in most instances to lack of exercise. The advantages of institutions for the blind were pointed out as being threefold, as follows: (1) Segregation, producing concentration of efforts in like thoughts. (2) Similarity of physical work, as in the gymnastics of a school, or in labor production in a home, and (3) the application of restraints and self-restraints by capable instructors.

At the last stated meeting of the Philadelphia Obstetrical Society, December 2d, Dr. Joseph Eastman of Indianapolis, read by invitation a paper dealing with the question of operative treatment of pelvic support, in which he advocated supporting the uterus from above, as by the procedure of drawing down and stitching the broad ligaments to the vaginal wounds in order to prevent rectocele after the operation of vaginal hysterectomy, and he also recommended ventral fixation of the uterus for the same class of cases; the speaker strongly deprecated the French clamp operations, and held that support was never obtained in this way.

Dr. Joseph Taber Johnson of Washington, D. C., read by invitation a paper on the abdominal and the vaginal operations for the treatment of pus collections in the pelvis, and advocated the latter method as the one to be generally preferred, particularly in collections of pus low down in this cavity, in which evacuation can be secured by a free vaginal incision, without the higher mortality which attends abdominal section. The speaker believed that by the vaginal operation he had reduced the mortality from twenty-five per cent. to *nil* in patients whose weakened condition before operation made them liable to succumb to the shock of celiotomy. At the close of the evening's meeting a reception was tendered the visitors of the Society by Dr. E. E. Montgomery at his residence.

The Jewish Hospital is preparing plans for the erection on their grounds of a convalescent hospital and home for incurables. The sum of \$50,000 is now available for building purposes, and a legacy exists which will give the hospital authorities a handsome endowment for this department. Work on the new structure will be commenced during the spring of next year.

The authorities of the College Department of the University of Pennsylvania have recently announced that all students in that department of the University must have their eyes examined by an ophthalmologist, the expenses of this examination to be borne by the college authorities. This new step, which is being made to care for the physical condition of the students at this institution, is to go into effect at the same time that the regular physical examinations begin.

Dr. Richard C. Norris, who has recently recovered from a serious illness, has obtained a two-months' leave of absence from his duties as physician-in-chief of the Preston Retreat, and intends to leave during the latter part of this month for an extended trip to the Mediterranean and the Continent.

The total number of deaths in this city for the week ending December 4th was 391, a decrease of 3 from the preceding week, and an increase of 50 over the corresponding period of last year. Of the total deaths there were 139 in children under five years old. There were 324 new cases of contagious diseases reported, or 85 more than last week. Deaths from diphtheria numbered 41, with 152 new cases; from scarlet fever, 1, with 55 new cases; and from enteric fever, 10, with 117 new cases.

The number deaths in this city during the week ending December 11th was 401, an increase of 10 over those of the preceding week, and an increase of 26 over those of the corresponding period last year. New cases of diphtheria numbered 128, with 32 deaths; of scarlet fever, 47, with 3 deaths; and of enteric fever, 125, with 12 deaths. The rather alarming outbreak of diphtheria which occurred in two of the uptown wards last week and the week before has been somewhat suppressed by the strenuous efforts of the health authorities, although the disease can be scarcely said to be under full control as yet, for 28 new cases were reported from this district during the past week.

OUR BERLIN LETTER.

[From our Special Correspondent.]

PROFESSOR EDINGER AND THE TENDENCY TO SPECIALIZATION IN MEDICAL CONGRESSES—A NEW SUGGESTION IN THE APPLICATION OF THE X-RAYS—MODIFICATIONS OF THE CHEMISM OF THE BLOOD IN LEUCOCYTOSIS AND THEIR SIGNIFICANCE—THE USE OF GLOVES DURING SURGICAL OPERATIONS—PROFESSOR LEYDEN ON THE DIAGNOSIS OF ADHERENT PERICARDIUM.

BERLIN, December 11, 1897.

AFTER two recent experiences with large medical congresses—the one at Moscow and the other the meeting of the German Naturalists and Physicians at Brunswick—some of the medical men here have asked the very pertinent question *cui bono?* What is it all worth? It seems that there was a time, within the memory of men now living, when even the meeting of a National medical society was an occasion for the general practitioner to gather together the scattered threads of advancement in theoretic medicine, and the specialist to realize their application to the problems of general practice, and each would return to his clientele with broader views, newer methods, and with a sense of satisfaction at the information gained, which amply repaid the expenditure of time, money, and labor.

But all this has been changed. Whatever the specialist may hope for from the discussions, the general practitioners has little to gain. Medical congresses are afflicted, like everything else in our profession, with the furor for specialism, until now they are hardly more than a series of special society meetings, the only bond of union being the fact that they are held at the same time and place as their sister societies. No gynecologist thinks of attending a section on internal medicine; he scarcely has time in which to attend all the sessions of his own specialty. The laryngologist, the neurologist, each has the same reason

for confining himself to the comparatively narrow circle of his brother specialists, and their communications are the only ones for which he has an ear.

It is true that all specialists insist with unabating emphasis that real success in specialism lies in not allowing oneself to be limited by the narrow confines of a specialty, and that the broadening influence of general practice, even as regards success in a particular department of medicine, is likely to be seriously undervalued. Such expressions seem to be merely the result of habit, *vox et præterea nihil*. The theoretic branches of scientific medicine, which truly are the foundation of all real advance, receive the least attention. None but teachers and investigators have any interest in them. The sections on anatomy, physiology, even the one on pathologic anatomy, at a large congress, may be accommodated in small rooms with no fear of overcrowding. As Professors Edinger and Waldeyer say, for it is their opinions I have been quoting, "the only remaining chance for the theorists and practitioners to meet on common ground seems to be rapidly slipping away. Yet each class has urgent need of the experiences of the other. The practitioner will be aided in the application of new therapeutic measures, and the theorist and experimenter will be assisted in determining the direction his efforts should take, according to the success or non-success of existing methods."

National and International medical gatherings are becoming more and more unsatisfactory to the attendants. Except as pleasant opportunities for friendly greeting they almost cease to have an excuse for existence. The remedy is not easy to find, though Professors Waldeyer and Edinger each have a suggestion to make. Professor Waldeyer would have a National meeting in Germany but once in two years instead of once a year. Even then the number of papers would have to be limited, and precautions taken to see that only the most important ones and their discussions occupy the time of the meeting.

Professor Edinger thinks that the specialists should hold congresses by themselves, and that instead of the usual announcement of the committee of arrangements, "We take pleasure in announcing that at this year's congress our military-veterinary brethren will hold sessions of their own," there should be a limitation of the number of special sessions to be held to five or six, and that there should be a clearing-house committee to whom all papers should be sent, and who should select the ones of sufficient general interest to be read before the sections. The others being printed in a volume of preliminary transactions to be distributed before the meeting opens. As this is about the time of year that committees of arrangements are preparing for next summer's meetings, he commends this scheme or a modification of it to their consideration.

The Röntgen-rays are every day finding new applications, but not the least surprising is the very recent matter-of-fact suggestion of a stolid, prosaic, German doctor, as to their availability in the selection of a bride. The end of marriage being the reproduction of the species, any hindrances to this end which exist, and which may be discovered without subjecting the persons concerned to any

indignity, he argues, should be found out before marriage. Any insuperable pelvic contraction may thus be easily detected, and he suggests that *fiancés* should exchange not only ordinary, but X-ray photographs, when the preliminary steps to matrimony are being taken. This method, he considers, will be of invaluable services to members of royal and aristocratic families to whom the birth of an heir is all important, and the skiagraph of his beloved will be one of the things that a princeling will be supposed to possess before seriously commencing negotiations for her hand.

Some very suggestive work on modifications of the chemic constitution of the blood and certain of its metabolic processes after destruction of white blood-corpuscles, as seems to occur during both hypo- and hyperleucocytosis, has just been reported from Professor Senator's clinic at the Charité. Drs. Löwy and Richter pointed out some time ago in the *Berliner Klinische Wochenschrift* that artificial changes in the number of leucocytes present in the blood produced by the injection of such substances as nuclein, spermin, or pilocarpin, were followed by changes in the alkalescence of the blood. The well known connection of variations in luxuriance and rapidity of micro-organismal growth with the varying degree of alkalinity of the culture medium led them to suggest that these variations of alkalescence are of great biologic importance in the practical questions of infection and immunity. The fact was at first disputed, but has now been confirmed by a number of experimenters, though the conclusions suggested by the original observers have not all been accepted. They now announce that the presence of albumoses in the blood may also be demonstrated in these hypo- and hyperleucocytic states. These albumoses are not the result of chemic processes caused by the substances injected to produce leucocytosis, but are the result of vital changes in the blood, especially in the white corpuscles. Their observations, if confirmed, will add another link to the chain of information as to the chemism of the blood in infectious diseases, which Klempner and Von Jaksch so strikingly illustrated by their discovery of the increase of uric acid present during the leucocytosis of pneumonia. Such discoveries now constitute one of the most hopeful sources of information with regard to the real significance of symptoms in the infectious fevers.

Besides, Drs. Löwy and Richter have shown, by adding sugar to freshly drawn blood which has been kept some hours in a brood-oven, that the glycolytic faculty of the blood, its power to dissolve and carry sugar, is considerably lessened if the blood be drawn from an animal after the production of artificial leucocytosis. This fact would seem to account for the observation made by Von Noorden and others that during pneumonia in which a typical leucocytosis is always present, the faculty of the individual for sugar metabolism, *i.e.*, for the storage and use of sugar products is greatly lessened.

Since Professor Mikulicz introduced the use of cotton gloves in operations at his clinic the custom has been gradually spreading here in Germany until now many of the younger surgeons are using them. In the larger

clinics, as a rule, not the operator himself, but the chief assistant nurses wear them. That they are a distinct advance in asepsis is admitted on all sides. This advance too, comes just with reference to that part of surgical asepsis which the bacteriologists have been some time insisting is likely to be most incomplete—the disinfection of the hands. The older surgeons still object to them, because of the unusual sensations their use involves, but it is evidently only a question of time when some such mechanical addition to the asepsis of the hands of nurses and operators will be generally adopted.

Professor Leyden recently reviewed the question of diagnosis of adherent pericardium during life in connection with the specimens from a case in which it had been found *post-mortem* without having been diagnosed previous to death. It constitutes the *pièce de résistance* of the young, ambitious diagnostician, and the veteran's opinion may be of interest. The general symptoms it causes he considers as those which may occur in almost any condition, endomyo- or pericardial, which hampers heart action. As to the one symptom which sometimes is pathognomonic, the systolic retraction at the apex, or even over a considerable area of the precordia, it is not always present and when it is, is not always significant. It depends for the latter upon the arrangement of the fascia. Fascia is notably liable to anomalies, and this special fascia has been shown by recent investigation to be subject to a great many variations. The diagnosis concretion pericardii is never more than a probable one, and this important pathologic change remains as one of the interesting diagnostic problems for the future to solve.

TRANSACTIONS OF FOREIGN SOCIETIES.

Berlin.

MYCOSIS OF THE HUMAN SKIN AND DISEASES IN GENERAL PRODUCED BY PATHOGENIC YEAST FUNGI—BOTTINI'S OPERATION FOR HYPERTROPHY OF THE PROSTATE.

AT a session of the Medical Society, October 20th, BUSCHKE read a paper on *Mycosis of the Human Skin and Diseases in General Produced by Pathogenic Yeast Fungi*. This is an old subject, and during more than twenty years the question has been disputed whether or not yeast fungi are pathogenic for men and animals. Raum, in 1891, obtained some positive results from experiments upon animals. Busse and Buschke, some time since, reported the death of a woman, aged thirty-one years, from ulcers of the face and a tumor of the left tibia. During life they demonstrated, both microscopically and by the culture method, the presence of yeast fungi in the lesions. Some months later, at autopsy, similar lesions were found in the lungs, kidneys, spleen, and in some of the ribs. Microscopic examination of the ulcer in the skin showed increased growth of the epithelium, inflammatory infiltration, loss of the line of demarcation between the cutis and the subcutaneous tissue, and the presence of numerous giant-cells. The epithelium was finally destroyed, the fungi pressing into the epithelial tissue, and by their growth contributing to the destruction of the lat-

ter. In general, the process greatly resembles the infectious tumors of actinomycosis, glanders, tuberculosis, and syphilis. Isolated instances of the occurrence of this disease in human beings have been reported of late years. Several observers have attempted to show that yeast fungi are responsible for the lesions of carcinoma, sarcoma, and variola, but such opinions are not as yet well-founded. Undoubtedly there have been many cases of disease produced by fungi which have been overlooked, and now that attention is turned in this direction, it is to be hoped that this obscure subject will soon be elucidated.

At the session of October 20th, HERZFELD described two cases of mycosis, the lesions of which greatly resembled those of thrush, although the microscope showed them to be produced by yeast fungi. One patient was an old man convalescing from influenza-pneumonia. The other was a girl twenty years old, who sought medical relief for difficulty in swallowing. The whole pharynx, mouth, and tongue were covered with thick, loosely interwoven masses of a gray color than is usually seen in thrush. Cleansing of the mouth with a solution of borax speedily produced a cure in both instances.

FREUDENBERG spoke of his experience with Bottini's operation for hypertrophy of the prostate. This procedure is not entirely without danger. He lost one patient on the day following operation from pulmonary embolism. Another, a man aged seventy-seven, died the day after from a long-standing pyelitis; but it should be remembered that any operation in these cases is attended with a certain amount of risk, even the use of the catheter having its dangers. Hemorrhage occurred in three cases, but was not alarming. It may be avoided by making the incision slowly and keeping the cautery point at the right temperature. The success of operation depends upon the number of incisions, their length and their direction; and also to no small degree upon the after-treatment. In a few cases of Freudenberg's the operation was followed by incontinence of urine, but this was only temporary. Bottini has had the same experience. This complication is probably due to the extension of the incision into the membranous portion of the urethra.

London.

RECENT EXPERIENCE WITH LARGE DOSES OF CREOSOTE IN CONSUMPTION—TREATMENT OF LATERAL CURVATURE OF THE SPINE—EMPYEMA OF THE ANTRUM IN A CHILD EIGHT WEEKS OLD—PARTIAL CRETINISM—SUCCESS OF COLEY'S FLUID—MESENTERIC CYSTS—ABDOMINAL HYSTERECTOMY FOR MYOMATA OF THE UTERUS—MEDICAL HEMORRHAGE.

At a meeting of the Harveian Society, October 21st, BEALE read a paper, entitled *Recent Experience with Large Doses of Creosote in Consumption*. The patients were treated with beechwood creosote dissolved in cod-liver oil, the dose being slowly increased from 5 minims daily to 160 or even 180 minims. The results achieved were highly satisfactory and in some cases most striking. The fall in temperature, gain in weight, and the subsidence of symptoms seemed to be more definite and lasting than the degree of improvement commonly observed as a

result of hygienic treatment alone. The creosote was well tolerated. In many instances the patients passed blackened or greenish urine; but it could not be ascertained that either the quantity or chemic composition was seriously altered. The speaker doubted if the more specialized products, such as guaiacol and its carbonate can give equally good results. However, the drug should be regarded not as a specific remedy but rather as a valuable adjunct to the many existing methods of hygienic treatment of phthisis.

THOMSON stated that at Dettweiler's sanatorium for consumptive patients at Falkenstein in the Taunus Mountains, creosote was given a long trial and finally abandoned, along with tuberculin and all other specific remedies. Treatment is now entirely symptomatic, and general dietetic and hygienic influences are the only therapeutic measures relied upon. FELCE said that commercial creosote is a somewhat variable product, and for this reason he prefers the carbonate of guaiacol.

At the session of November 4th, SMITH read a paper on the *Treatment of Lateral Curvature of the Spine*, pointing out the advantages which may be derived from mechanical, in addition to other methods of treatment. He said that it is claimed by advocates of the treatment by exercise alone that deformities in the bones cannot be remedied, and further stated that rotation is a test of such deformities. Smith has found that it is quite possible, by means of the hands alone, to hold the patient in a straight position, even though slight rotation has commenced; and it is also possible, by means of apparatus, to maintain the position until the bones readjust themselves.

CLARKE said there is much misunderstanding as to the various methods of treating lateral curvature. In rickety infants instrumental treatment is absolutely necessary. Some surgeons are mistaken in supposing that they use exercise alone in their treatment. Thus Roth's plan consists in placing the patient, during three-quarters of an hour, upon a hard table, as well as the use of a series of exercises. The weight of the patient pressing against the table makes the latter an instrument. Other similar instances were mentioned. Thus, there is less difference between the methods employed by various surgeons than at first sight appears to be the case.

At a meeting of the Pathological Society, November 2d, POWER showed a specimen of *empyema of the antrum in a child eight weeks old*. The face of the child was bruised in a forceps delivery, but the abscess was not noticed until one month later. At the time of operation the facial bones were extensively necrosed, and the child died thirteen days after the abscess cavity had been freely opened and curetted.

CALVERT and PIGG showed a specimen of *calcification of the pericardium*, the result of a chronic suppurative process which apparently had continued five years. The heart was almost entirely encased in calcareous material, and there were several ounces of inspissated pus in the pericardial cavity.

At a meeting of the Medical Society, November 8th, COLMAN showed a *child nine and one-half years old*

who was a partial cretin. A stunted growth, absence of any demonstrable thyroid gland, fat masses in the anterior triangles of the neck, thick lips, puffy eyelids, lordosis, and prominence of the abdomen were the signs of cretinism which she presented. There was, however, an entire absence of the usual nervous symptoms. The child was given daily 3 grains of the dry thyroid extract, and, within four months, grew two and one-half inches. Colman explained the absence of nervous symptoms by the assumption of an accessory thyroid whose secretion was sufficient to maintain the nutrition of the brain.

MOULLIN showed two cases in which *inoperable tumors had almost disappeared after the repeated injection of Coley's fluid*. One patient was a man, aged twenty-eight years, with a deep tumor in the groin. Gradually increasing amounts of the fluid were injected every three or four days. The tumor increased rapidly until three months after the beginning of the treatment, when it gave evidence of acute inflammation. From this time it rapidly grew smaller until only a trace of it remained, in which condition it still continues. The second patient was also a man, aged forty-eight years, with an irregular, hard swelling in the left flank, which was not connected with the skin or abdominal muscles. In this case the injections were given for some time without much apparent effect. Then the tumor became acutely inflamed as in the other case, and afterward rapidly subsided. Both tumors were considered to be sarcomatous, although there was no definite proof of this fact.

At a meeting of the Royal Medical and Chirurgical Society, November 9th, EVE read a paper on *Mesenteric Cysts*. The first case described was that of a male infant, aged eleven weeks, with a freely movable fluctuating tumor in the right side of the abdomen which was diagnosed as a mesenteric cyst. There was almost constant diarrhea and vomiting. Celiotomy was performed and a cyst of the mesentery of the small intestine was found attached to the abdominal wall. A few days later it was opened and drained. The child appeared to have recovered, but six weeks after had convulsions and died. The cause of death was not demonstrated at the autopsy. The second case was that of a male child, aged three and one-half years, in whom a cyst of the mesentery of the small intestine containing thirty-two ounces of serous fluid caused an acute intestinal obstruction. This cyst was excised, but death occurred nine hours after operation. These two cases illustrate the typical symptoms of mesenteric cyst in the earlier and later stages. The first had symptoms resembling gastro-enteritis with accompanying emaciation, the second, typical intestinal obstruction without definite premonitory symptoms. In the first case the cyst was easily recognizable by physical examination; in the second, it was obscured by coils of intestine.

At a meeting of the Obstetrical Society, November 3d, SUTTON read a paper on *Abdominal Hysterectomy for Myoma of the Uterus*, in which he took a position that provoked rather sharp criticism. He said that on account of the favorable results from the newer methods of hysterectomy, it is the duty of physicians to point out to patients the desirability of having myomata removed before

they grow too large to permit of a vaginal operation. As is the case with ovarian tumors, an early operation is less dangerous than one performed at a later stage. Whenever possible, if operating upon women who have not reached the menopause, he leaves the tubes and ovaries, on the principle that the best surgery does not needlessly sacrifice any organ, least of all such important ones. His results were admirable. Of twenty-eight patients he lost but two, and the period of convalescence was far shorter than if there had been a pedicle requiring extraperitoneal treatment.

DORAN insisted that the comparison between an ovarian tumor and a fibromyoma was an unfair one, for the reason that the former, if let alone, will almost always cause the death of the patient; whereas the latter will, in many instances, not even become troublesome. He objected to leaving the Fallopian tubes behind, because they often contain pathologic fluid. PLAYFAIR said that he could not subscribe to the doctrine that the mere existence of a myoma, whether it gives symptoms or not, is sufficient ground for a hysterectomy. This theory is dangerous and untenable. In many cases an oöphorectomy should be preferred to a hysterectomy, on account of the lower mortality which attends the latter operation. He felt sure, however, that the extraperitoneal method is doomed. MEREDITH is not so dissatisfied with the extraperitoneal method as some of the other speakers. With this method of operating he obtained eighty-three recoveries out of ninety abdominal hysterectomies.

At a meeting of the Hunterian Society, November 10th, SMITH read a paper on *Medical Hemorrhage*. He divides the long list of medical hemorrhages into (1) those accompanied by some severe or fatal general dyscrasia or diathesis, and (2) those without such concomitant. As far as the immediate treatment of hemorrhage is concerned, he thought it wrong to administer ergot for arterial bleeding, as it increases the blood pressure, has no tendency to induce coagulation, and its power to stimulate contraction of involuntary muscle cannot stop arterial bleeding, except in case of hemorrhage from the uterus. In venous and capillary hemorrhage the contraction of the arterioles is beneficial by reducing the flow of blood through these vessels, and hence, ergot may be rationally administered in such cases. The most reliable treatment includes *rest* obtained by a horizontal position, and the administration of *cannabis indica*, or, better, opium. For pulmonary hemorrhage he recommends the administration of iodid of potash, and also inhalations of the vapor of turpentine. If the hemorrhage is gastric or intestinal, astringents are indicated. Colman spoke of the value of a large dose of sulphate of magnesium given at the beginning of a case of hemoptysis. Several of the members disagreed with Smith's opinion in regard to the injury which may follow the use of ergot in arterial hemorrhage.

Preparation of Aristol Ointment.—The formation of lumps which is apt to occur when aristol is directly incorporated with vaselin will be avoided if the aristol first be triturated with the neutral oil of vaselin.

SOCIETY PROCEEDINGS.

NORTHWESTERN MEDICAL AND SURGICAL SOCIETY OF NEW YORK.

Stated Meeting, Held October 20, 1897.

THE President, DR. CHARLES L. DANA, in the Chair.
DR. L. D. BULKLEY read the paper of the evening, entitled

THE NON-SURGICAL TREATMENT OF BOILS, CARBUNCLES, AND FELONS.

The paper gave in detail the treatment which the author has employed during more than ten years in curing these conditions without the use of poultices or the knife. Referring to the causes of the formation of pus, he said that the essential features of suppuration, the staphylococci aureus and albus, are spoken of by one writer as being normally present on the skin, and that opinions are becoming divided as to the true pathogenesis of many conditions which were supposed to have been fully understood years ago. The author recognizes the pyogenous qualities of micro-organisms, but asserts that their powers are temporary and limited by their own nature and the condition of the tissues in which they are found, as shown by the different results attending superficial wounds in different individuals and also in the same individual at different times. Pus bacilli are everywhere present, and ready at all times to lodge and do their work if the soil be suitable, yet suppuration is set up in comparatively few instances. The occurrence of suppurative processes should always be regarded as a result of faulty metabolism, and a careful search should be made to find out and remedy that which is wrong.

Persons with boils, carbuncles, or felons are not in perfect health, and patient investigation will generally reveal the line upon which successful treatment should be instituted. Iron is most commonly needed, and the preparation used by the author is known as Startin's mixture, *viz.*: Ferri sulphatis, 3 i; magnesiæ sulphatis, 3 vi; acidi sulphurici diluti, 3 iv; syrupi zinziberis, 3 iv; aquæ, q.s. ad., 3 iii. M. Sig. One teaspoonful, in water, through a tube, after meals. Unless contraindicated, treatment should be begun with a mercurial purge: Mass. hydrargyri, ext. colocynth. co., aa gr. x; pulv. ipecac., gr. ij. Divide into four pills. M. Sig. Two at night and the remaining two on the second night after. Repeat at the end of a week, or oftener if considered necessary. Sulphid of calcium should be administered because it has a decided effect on the process of suppuration, and it should be given in free doses— $\frac{1}{4}$ grain every two hours until eight or ten doses have been taken. Careful attention should be paid to the diet and mode of life.

The local treatment of furunculosis is as follows: To soothe and protect the inflamed area, to exclude the air, and to exert a slight antiseptic action, the surface is covered with a moderately thick layer of absorbent cotton, in the center of which is placed a mass of the following ointment: Acidi carbolici, gr. v-x; ext. ergotæ fld., 3 iii; pulv. amyli, 3 ij; zinci oxidi, 3 ij; ung. aq. rosæ, 3 j. M. Sig. This is placed over the boil and held in place by

adhesive straps, which, however, should not pass over the boil. The dressing should be changed every twelve hours. Combined with internal medication this application will often absorb the boil.

The local treatment for carbuncle is the same as that for boils, the author adding that he has not found it necessary to incise a carbuncle since November, 1882. He admits that from neglect or other cause a very large suppurating carbunculous area may exist, which may demand active surgical treatment. This will not occur if the above treatment is carried out.

For inflammatory conditions about the ends of the fingers, commonly known as paronychia, whitlow, and felon, the same treatment is advocated, with the exception that diachylon or litharge ointment is employed. This is prepared according to Hebra's method, as follows. Olei olivarum optimi, 3 xv; plumbi oxidi, 3 iij-vj; olei lavandulæ, 3 ij. M. Add the oil to two pints of water, with constant stirring; the litharge is to be slowly sifted in while it is well stirred, fresh water being added as required. It should be stirred until cold and the lavender added. The finger is to be plunged into the jar and the first joint entirely enveloped in the ointment to the thickness of a quarter of an inch; over this absorbent cotton is placed and loosely bound. The author said that in cases seen reasonably early this treatment will relieve the pain and cause resolution, but that he places the greatest value on the internal and general treatment.

DISCUSSION.

DR. J. H. FRUITNIGHT said that all were agreed that in many of these cases constitutional treatment is as essential as local treatment. In general furunculosis he has always been in the habit of administering the sulphid of calcium, and with beneficial results. In this disease constitutional disturbance seems to be present, while carbuncle is more local, and not so much dependent upon constitutional causes. When a carbuncle is seen early, he makes a crucial incision and cauterizes it thoroughly. Ichthyol ointment sometimes aborts the process of suppuration.

DR. COLE said he could not agree with the author, although in many respects he coincided with him in regard to the constitutional treatment. There can be no doubt that in diabetes there is a tendency to these conditions, but they also occur when there is no constitutional disturbance. In these days of modern aseptic surgery, the patient can be more quickly and thoroughly relieved by incision than by any other method of treatment. The relief is instantaneous and recovery takes place in a remarkably short time. When there is constitutional disturbance he employs the sulphid of calcium in large doses— $\frac{1}{4}$ grain every hour, until the system is thoroughly saturated with it. Incision he considers the only treatment for carbuncle, and, if it be large, all diseased tissue should be removed. He cited the case of a man, seventy years of age, from whose back he removed a carbuncle as large as a dinner-plate. The indurated mass removed was two and one-half inches thick. The man recovered. Regarding the treatment of deep-seated

felons, he thought the tension should be relieved by an incision reaching to the bone. He referred to a case of felon of the thumb occurring in a young woman, who absolutely refused to submit to incision, and in which the thumb was lost. He expressed the opinion that it is simply tampering with a very serious trouble to treat these cases with ointments and constitutional remedies. By the use of the knife, relief is immediate and the patient is saved weeks of suffering. Ointments are useless when suppuration has set in. Building up of the system is well enough, but the knife is indicated in hundreds of cases. If pus is present, it will not escape unless an incision is made, and if it is not evacuated the bone will become affected and a joint or two will be lost.

DR. S. H. DESSAU said that, while he agreed with the previous speaker regarding the treatment of felons and carbuncles, his experience with furunculosis in children led him to think that there must be some constitutional factor which occupies an important place in the occurrence of this affection. It is common during the summer months to see an eruption of boils in children which is not often seen at any other season, and it would seem that the heated term acts as a depressor upon the nervous system, and thus favors the development of boils. In these cases excision of the furuncles when they reach the stage of suppuration does not seem to prevent the appearance of a second crop. Internal treatment is indicated, and is successful. For this purpose he prefers the syrup of the hypophosphite of lime, which seems to act almost like a specific in clearing up the skin. Carbuncles and felons are apt to occur in neurotic subjects, and felons are much more common in the female sex; and this would lead to the belief that they are the result of some nervous condition. He is in favor of incision down to the bone in the treatment of felons.

DR. ROBERT H. GREENE called attention to the value of carbolyzed oil as an application for boils and carbuncles. He has used it of a strength of half a dram to the ounce, or stronger, according to the susceptibility of the patient, during a number of years with excellent results.

DR. ROBERT MILBANK expressed the opinion that furuncles, boils, and carbuncles are due to one and the same microbe, differing only in the number of foci. He incises them early, freezing the part with ethyl chlorid, swabs them out with carbolic acid, washes them out every day, and keeps them covered with a light dressing. He cited a case in which a man, aged twenty-six, powerful and in splendid health, a rubber in a Turkish-bath establishment, had a series of carbuncles. Incision was advised, but the patient refused to submit to it, and the carbuncles followed one another until he allowed the speaker to open one, with the result that he has never had another. The patient probably contracted the disease by rubbing a man who was suffering from boils. Constitutional treatment should be employed to build up those who have become worn out and exhausted as a result of this painful disease, and not because the constitutional disturbance is the cause of the trouble.

DR. ROBERT A. MURRAY said that it is a distinct retrogression instead of an advance to treat these cases in

the way described by the author. The disease is due to infection, and applications to the skin will have no effect upon its progress. Constitutional disturbance may act as a causative factor in that it is accompanied by a depraved condition of the system. Furunculosis occurs in children because they are not cleanly, and during the warm weather because the skin is tender and easily infected. Boys who frequent the free swimming-baths are peculiarly liable to develop boils, obviously as a result of infection, even though a certain amount of anemia may exist. The administration of sulphid of calcium is all very well, but its effect is slow. Early incision under ethyl chlorid freezing or under nitrous oxid anesthesia is much better treatment.

The speaker stated as his belief that a felon is a periostitis; that the firm attachment of the periostium to the bone at the tip of the finger prevents the escape of pus, and that necrosis will be the result if the case is not treated surgically. Mechanics and washerwomen often have felons because they are constantly stubbing and bruising the ends of their fingers, the mechanic with his tools and the washerwoman on her wash-board. The proper treatment is to incise and split the periostium, evacuate the pus, and thus save the bone. If done early and properly there will be no deformity, whereas, if it be allowed to go on to rupture an ugly scar and often a distorted finger is the result. As the latter may prevent the patient earning his or her living, it is especially important that it be avoided.

He is in favor of incision and wide excision in cases of carbuncle, and cited a case in which he had successfully removed one as large as his hand from a woman ninety-five years of age. As a dressing he employs a 1 to 4 mixture of ichthyol and glycerin, and never iodoform in any shape, because poisoning is liable to occur as a result of rapid absorption. He referred to another case, that of a man who worked among horses, in which a series of carbuncles seemed to be due to infection by the anthrax bacillus.

DR. A. M. JACOBUS said that he had had no experience with the line of treatment laid down by the author. His custom is to promptly excise all carbuncles and felons, dividing the periostium in the latter in order to let out the pus and save the bone. In regard to the constitutional treatment, there is no doubt that it should be thorough. Iron is generally indicated. He has used sulphid of calcium with practically no benefit.

DR. JOHN F. ERDMANN remarked that an experience such as that of the author, which covers twelve or fifteen years, deserves some consideration, but thought that Dr. Bulkley had not seen severe cases. Boils and carbuncles do not call for the same treatment as that indicated for felons. In the form of felon known as paronychia it is unwise to delay incision and run the risk of necrosis of the bone, destruction of the sheath of the tendon and of the tendon itself, and, possibly, palmar abscess. When pus is forming the knife should be used at once. Tension and pain are thus relieved, and the danger of infection traveling through the lymph-channels is averted. In carbuncle the question is not one of the formation of

pus, but one of the formation of slough. The pus is of low grade. The only thing is to make a free incision, several if necessary, in order to secure discharge of the slough itself. With regard to Dr. Murray's case, carbuncle is not caused by the anthrax bacillus unless there is true malignant pustule.

DR. JOSEPH COLLINS said he had not had much experience in the treatment of these three conditions, but that his knowledge of surgical pathology would seem to indicate that the views of the author of the paper are not in keeping with the rules of pathologic teaching. If it is taken for granted that felons, boils, furuncles, and carbuncles are caused by certain cocci, and that these cocci get into the system through abrasions of the skin or through the hair-follicles, it does not seem as though external applications would be beneficial. In his opinion, these conditions are due to the presence of cocci, and whatever constitutional symptoms there may be, are secondary or their presence is a coincidence. Depraved vitality predisposes to the disease. In such a condition iron and sulphid of calcium may be given with benefit.

DR. WILLIAM STEVENS also advocated early incision in the treatment of felons and carbuncles. In boils incision may sometimes be avoided by injecting carbolic acid deep into the substance of the boil.

DR. ROBERT NEWTON agreed fully with the author, and said he had seen many of these cases in a large dispensary practice, and that formerly he had used the knife, but now he employs the methods laid down in the paper, with very good results. Diachylon ointment, when freshly made, gives excellent results. Sulphid of calcium internally is one of the most valuable of remedies, and will sometimes prevent suppuration. In felons, when there is necrosis, the knife should be used. He was surprised that no one had mentioned the hypodermic injection of carbolic acid in the treatment of carbuncle. Dissolved in glycerin and injected well into the base of a carbuncle it often prevents suppuration. Furuncles and boils are a constitutional disease, and in many cases simple bicarbonate of soda will cure the dyspepsia which causes them. The worst type of felons he has ever seen occurred in a young woman with anemia associated with malaria. Proper treatment of these conditions cured her of the felons.

THE PRESIDENT said he felt that the members had attacked the author's position rather unsympathetically. It is certainly true that there are felons which get well without surgical treatment. There were points in the paper which ought to be considered more fully.

DR. BULKLEY, in closing, said that he was prepared for the criticism which his paper had called forth, but he had hoped that some of the members would agree with him. That many do agree with him is proved by the fact that after he published a series of papers on the subject he received letters from physicians all over the country in reference to the treatment. It should be remembered that this treatment is not a new thing. During the twelve years in which he has practised it he has seen many cases recover. The prevalence of carbuncles in diabetes is an argument in favor of the constitutional

origin of these disorders. The final parasitic cause is not denied, but he insists that constitutional disease makes the system ready to receive and nourish the parasitic element.

REVIEWS.

CLINICAL METHODS, a Guide to the Practical Study of Medicine. By ROBERT HUTCHISON, M.D., M.R.C.P., Demonstrator of Physiology, London Hospital Medical College, and HARRY RAINY, M.A., F.R.C.P. (Edin.), F.R.S.E., University Tutor in Clinical Medicine, Royal Infirmary, Edinburgh. Philadelphia and New York: Lea Brothers & Co., 1897.

THIS work fulfils its purpose admirably. It is intended as a guide to the student and to the physician as to the manner of proceeding in the investigation of a case. It includes, therefore, case-taking, the examination of the various anatomic systems and organs, the examination of pathologic fluids, and also clinical bacteriology. As its title well indicates, it is a treatise on clinical methods without purporting to be a complete work on medical diagnosis.

The work begins with a description of methods of securing anamnestic data from the patient, and this is amplified by a "scheme" for taking a thorough physical examination. Chapter II. deals with the general condition and appearance of the patient; it brings forth points of vital importance in the examination and is very complete. The ten succeeding chapters take up in detail the examination of the systems of the body, in the following order: The alimentary system and abdomen, the circulatory system, clinical examination of the blood, the respiratory system, the urine, the skin, the nervous system, the eye, ear, throat, and nose, and the locomotor system. Our only criticism of these chapters would be that they are too diffuse; the authors have tried to cover too much ground. The spectra of hemoglobin and its derivatives and the table of origin of the spinal nerves belong rather to works on physiology and anatomy than to a book on *clinical* methods. On the other hand, the visual representation of auscultatory phenomena and of the direction of sound of the various cardiac murmurs are in the right direction and will prove distinctly helpful to the reader, be he student or practitioner. The nomenclature and terminology are decidedly modern, and this is especially true of the nervous system, although we prefer the word "convulsion" to "fits."

In Chapter XII. are given the usual methods of examining children, and many useful hints not ordinarily found in books of this class are to be noted. The succeeding chapter deals with the examination of pathologic fluids, including the fluid obtained from cysts and that secured by lumbar puncture. The concluding chapter of the book treats of the clinical bacteria with methods of preparing them for microscopic examination. Widal's test appears here and the Schottelins-Koch method of differentiating cholera bacilli is described, although not mentioned by name. The animal parasites are described in the chapters devoted to the organs which they inhabit.

We have cited enough to show how complete and up-to-date is this handbook of medical diagnosis and its methods. If the authors have included too much, it is a sin which is easily forgiven. We do not know of any book of its kind, in the English language, at least, which so thoroughly covers the ground. It contains much more than the average text-book of medicine, with as much as most books devoted solely to microscopic diagnostic methods. Moreover, the size of the book is convenient for carrying in the pocket. It contains 8 colored plates and 137 illustrations, all of them useful in elucidating the text. The illustrations exemplifying physical signs and conditions are particularly instructive.

TRAUMATIC INJURIES OF THE BRAIN AND ITS MEMBRANES, WITH A SPECIAL STUDY OF PISTOL-SHOT WOUNDS OF THE HEAD, IN THEIR MEDICO-LEGAL AND SURGICAL RELATIONS. By CHARLES PHELPS, M.D., Surgeon to Bellevue and St. Vincent's Hospitals. Forty-nine illustrations. Pp. 532. New York: D. Appleton and Company, 1897.

THE author very justly regards traumatism of the brain as "a division of brain surgery which has the greatest practical importance and has received the least careful attention." This is due to the fact, as he remarks, that "the intrinsic difficulty which has been encountered in the interpretation of symptoms resides in the usual complexity of lesions, and has been increased by their apparent identity in cases in which dissimilar pathetic conditions have been found to exist." Many useful papers have appeared, from time to time, on various branches of this subject, but until the present there has been no complete treatise which in any proper manner answered the demands of the surgeon. The want is now supplied by this work, a most interesting feature of which is that it is an original study. The basis of that study was five hundred consecutive cases of recent injury of the brain, occurring in hospital practice where the opportunities for accurate observation were favorable. The subject-matter is incomplete only in the illustration of secondary pyogenic infection, involving the brain substance, but this deficiency has been supplemented by a quotation from Macewen's "History of the Pyogenic Inflammations of the Brain and Spinal Cord."

The work is divided into two parts, *viz.*, Part I., General Traumatic Lesions, and Part II., Pistol-shot Wounds of the Head; to which is added the condensed histories of three hundred intracranial traumatisms. A preliminary section is devoted to the consideration of cranial fractures in which the lesions are classified and the general features of each class given, with the principles of treatment. In the subsequent chapters of this part the author discusses at length each variety of cranial lesion with that accuracy of detail and that precision of opinion which his great clinical experience abundantly warrants. This is especially noticeable in the chapters on symptomatology and diagnosis. In the treatment of cranial injuries the author makes a well-deserved distinction, too frequently overlooked, between epidural and subdural collections of blood. The line of treatment which he draws throughout

this chapter is decidedly conservative, and the rules or procedure which are given for the various forms of injury cannot be too carefully heeded by the young surgeon.

Part II. comprises the results of the most careful and painstaking study of pistol-shot wounds of the head on record. As these injuries necessarily receive slight consideration from military surgeons, they must be studied in civil practice, and some features must be determined by experiment on the cadaver. The author has had unusual opportunities for the clinical study of pistol-shot wounds of the head in the two great hospitals of this city with which he is connected, and he has evidently improved these advantages by a close and careful analysis of the facts in each case. His experiments on the cadaver were very extensive, and are illustrated by a large number of admirably executed plates. The medico-legal questions which these experiments elucidate are judiciously considered and determined.

Our space does not permit of that critical examination of this work which would set forth in proper method its peculiar claims as an authority in this hitherto neglected and quite abandoned field of practical surgery. We can only state in closing this brief sketch that the author has produced a work which will be an imperishable monument to his long and patient labors and an honor to American surgery.

The publishers have done ample justice to the work, the paper, type, and illustrations being in the most approved form.

THERAPEUTIC HINTS.

For the Glossitis of Alcoholics.—

℞ Ac. chromici gr. x
Aq. dest. ℥i.
M. Sig. Apply lightly to points of inflammation.

For Intertrigo.—Gently bathe the affected parts once daily with a watery solution of picric acid (1-120). When the irritation has subsided and the epidermis reformed, keep approximated surfaces separated with thin layers of absorbent cotton upon which the following powder is spread:

℞ Pulv. amyli } aa 5 parts
Pulv. lycopodii }
Cretæ præparatæ } aa 10 parts.
Bismuth subnit.

For the Night-Sweats of Phthisis.—

℞ Plumbi acet. gr. x
Ext. gentianæ q. s.
M. Ft. chart. No. XII. Sig. Three to five powders daily.

For Influenza.—

℞ Quin. sulph. gr. xlv
Pulv. digitalis } aa gr. xv
Pulv. scillæ }
Ext. opii gr. v
Ext. glycyrrhizæ q. s.
M. Ft. pil. No. XXX. Sig. Four pills daily.

—Pepper.